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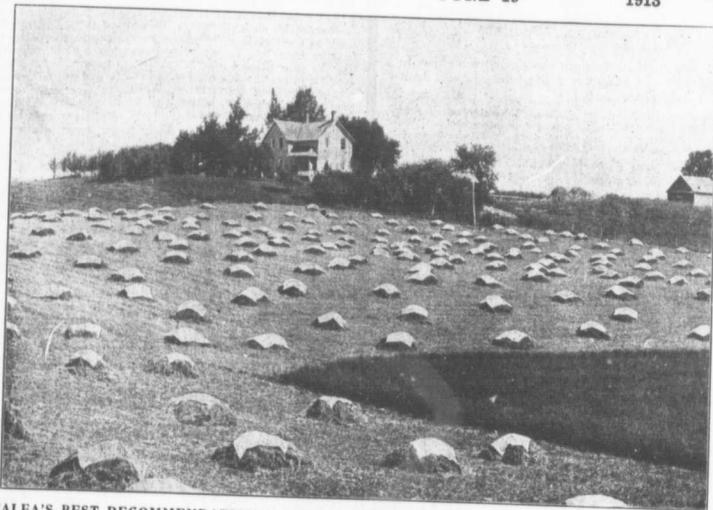
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JUNE 19

1913



ALFALFA'S BEST RECOMMENDATION IS ITS GROWING POPULARITY WITH PRACTICAL FARMERS. Thirty-three per cent. of the farmers of Ontario are now growing alfalfa. Alfalfa is being experimented with extensively in every other province of Canada. Our departments of agriculture and agricultural colleges receive more inquiries about alfalfa than about any other farm crop. And yet it is not many years since a few farmers only were experimenting with this plant and their results, due to the poor methods of cultivation followed, were often unsatisfactory. But you "can't keep a good thing down" and alfalfa is to-day classed with corn as a cheap and desirable roughage for farm animals. Scenes such as this are becoming common.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

Issued
Each Week

FARM AND DAIRY

&

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Vol. XXXII.

FOR WEEK ENDING JUNE 19, 1913

No. 25

A STORY OF MY SEVEN YEARS' ALFALFA EXPERIENCE*

Walter H. Bowley, Middlesex Co., Ont.

Why I Started to Grow Alfalfa. Some of my Early Mistakes. A full description of my Methods of Harvesting Alfalfa Hay that is Palatable and Appreciated by the Stock.

MY experience in growing and feeding alfalfa dates back over a period of seven years. At that time I read several articles written by Mr. Hy. Glendinning on alfalfa culture. Previous to that I had been almost always short of hay for the stock I kept. I decided to try six acres in alfalfa. I can assure Farm and Dairy readers that I have had most gratifying returns.

I seeded my first six acres of alfalfa alone without any nurse crop as I was anxious to secure a good stand. I made the mistake of seeding only 12 pounds of seed an acre. The seed I secured on this occasion was two years old—another mistake. For a long time it looked as if I were going to get nothing but weeds instead of a catch of alfalfa. But after a while the alfalfa started, and the land being in splendid condition, it certainly did start.

AN END TO THE WEEDS

About the last of August, following Mr. Glendinning's advice again, we clipped the field, which prevented all weeds from going to seed. This clipping gave the alfalfa a fresh start, so that when winter came we had a good stand of alfalfa with a good top to protect it from frost.

The next year I expected great returns from my alfalfa. In one way I got them; in another way I did not. From that six acres, if I remember rightly, I cut between 25 and 30 tons in three cuttings; but being green at the job I again made several mistakes.

The first cutting I did not cut soon enough, and it got very coarse and woody. The second cutting I cut about the right time, but tried to save it without coking, with the result that I lost nearly all the leaves. And the third cutting I put in a little too green. And the third musty; in fact some of it was white with mildew when I started to feed it in the fall.

I next seeded 10 acres more, which made 16 acres in all, and in 1909 we secured in two cuttings 60 tons of as good hay as ever was fed to a dairy cow.

READY FOR ANOTHER CROP

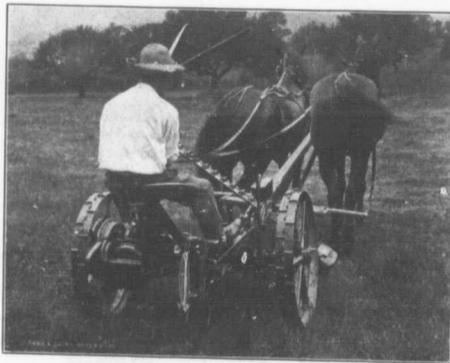
In 1910 I gave the same field a good coat of manure and prepared it for corn. The fall after keeping the corn field clean (which I tried hard to do) I did not plow the field at all, but the

Mr. Bowley, the writer of this article, was a successful competitor in one of the early Prize Farms Competitions conducted by Farm and Dairy. His first home was illustrated in Farm and Dairy a few months ago.

following spring worked it with cultivator, disk and harrow until there was an extra fine seed bed. I then sowed one bushel of barley as a nurse crop for our alfalfa with not less than 20 lbs. of alfalfa seed an acre.

I cannot get alfalfa too thick. The thicker it is the finer it is; and the finer it is the better it is. Seeded so thick and on well prepared land one is almost sure of a good catch of alfalfa.

The harvesting of alfalfa seems to be a difficult



The Very Latest Thing in Hay-making Machinery

Mr. S. M. Martin, Heatherdale, P. E. I., has just perfected the attachable hay tedder seen in the illustration. This tedder which loosens up the hay as soon as it is cut thereby quickening the curing, can be attached to any of our common makes of mowers. This photo was taken when the tedder was being given one of its first trials.

proposition; especially to those who do not grow it. As I have given you my first year's experience, you can readily see it was certainly a difficult proposition then for me. And it really does require a little experience before it can be done right. The last few years I have had splendid results, and I will try to give you our method as nearly as possible.

Having 16 acres to cut I like to start as soon as I can so that if we get a bad spell of weather the last will not get too far advanced before it is cut. I do not wait for the field to get one-tenth in bloom before I start. I start as soon as I can see an odd flower here and there. I always start on the highest part of the field first as it always flowers first. If I wait till the lower portion of the field is one-tenth in bloom, the hills will be all in bloom and the hay will therefore be too woody when cut.

I start to cut as soon as the dew is off in the morning, usually cutting about four acres at a time. As soon as the mower has had a good start I start the tedder going, and keep it going almost until it is fit to cok. I ted four or five times. I would suggest here: Don't try making alfalfa hay without a tedder, for if it is at all heavy it cannot be done. The leaves on the top will drop off before the hay underneath is fit to cok.

If it has been a dry, hot day, the alfalfa will be fit to cok the same evening as it was cut. If it is not well wilted I leave it until the next morning and ted it again.

COOK ALL CUTTINGS

I believe it will pay any man to cok not only the first cutting but every cutting. I do not allow my men to roll it in heaps and call that coking. Each forkful should be picked

up separately and put on top of each other making a small stack that will be practically waterproof. Then a week's rain will hardly hurt it at all, excepting the very outside of the cok.

If I do get a spell of rainy weather I consider it advisable to move the coks on to fresh ground to prevent the smothering of the plants underneath. This can be quickly done if two men work together. First we take one forkful off the top of cok and then both men put their forks in the same side of the cok and slide or pull it on to a fresh track; then replace the top forkful as before.

WHEN TO DRAW IN ALFALFA

To tell just when alfalfa is fit to draw in is the part that needs a little experience. After the cok has finished heating take a handful out of the centre and bring it with your hands. If you can wring some juices out, it is not quite fit. If you can not it will be all right to draw in.

For the first cutting it will take from four days to a week, depending on the weather, size of the coks, etc.

When putting my hay in the mow I do not put eight or 10 loads in the centre and leave it there, I spread it as it is put in, and I can assure you if this method is followed you will be well pleased in the winter when you are feeding it to your stock.

One point I have missed: Alfalfa will smother and kill, I believe, any kind of noxious weeds and grasses. I have seen and proven on my fields that alfalfa will smother and kill quack grass. I know of nothing else that will do that but a bonfire, where quack grass has once got a proper start.

Almost any of the coal tar dips is satisfactory for lice, if intelligently used in sufficient strength, at the time the stables and sheds are cleaned and disinfected. The treatment of animals is repeated one or more times at about ten-day intervals.

Turnip Growing in Eastern Nova Scotia

By J. A. Macdonald.

Farmers here in Eastern Nova Scotia have adopted a different and improved method of growing turnips compared with the methods they had when I knew them some years ago.

A decade or so ago they used to plow a grain stubble in the fall for the coming root crop. Now they shallow plow the sod, a clover sod if possible, early in the fall, harrow and roll to rot the sod and also cultivate once or twice. Late in the fall, before freezing weather, the land is again plowed, deeper than before, and left rough all winter.

In the spring, manure, about 20 tons to the acre, is well worked into the ground and the land kept cultivated from time to time until ready for seeding. It will be recalled that this method is somewhat similar to the one followed at Guelph except that the land is not ribbed, but only roughly plowed in late fall.

When barnyard manure is scarce a light dressing of this and 500 to 1,000 pounds of complete commercial fertilizer is used. Phosphate manure alone is not used as formerly, but a fertilizer containing the three ingredients, potash, nitrogen and phosphate. The phosphate and potash is spread broadcast before drilling, and the nitrate applied above the drills.

The drills are made with an ordinary plow, about 28 inches apart and on these freshly made drills turnip seed is sown with a drill or by hand at the rate of two to three pounds an acre.

THINNING AND AFTER CULTIVATION

When the plants are an inch or two high thinning begins. The drills are first thinned out with a wide-faced garden hoe, and then by hand. When thinned the plants should be about a foot apart. With some experience thinning may be done entirely with the hoe. Cultivation is begun at once in order to keep down weeds and continued once a week, or at least, fortnightly until the leaves close in over the ground.

Yields of 30 tons an acre are not uncommon in Eastern Nova Scotia. The acreage areas are not usually large. Nearly every farmer grows more or less turnips of one-fourth acre and upwards, and probably one acre would be the average area under turnips on one farm.

Not much corn is grown. Given equal chances, the turnip yield will be about double that of corn. Unless the season were favorable a yield of 15 tons of corn could hardly be expected from the ground upon which 30 tons of turnips could be raised.

To Prevent Silage Spoiling

A. G. Frew, Norfolk Co., Ont.

Last fall we erected a lath and plastered silo. Owing to so much wet weather we were not able to finish it as soon as we would like to have done. The corn, therefore, got very ripe and a little frosted before we were able to get it into the silo.

During the winter, while it was cold, we had splendid ensilage, well filled with good hard kernels of corn. Towards spring when the weather got warmer the ensilage began to heat and bake in large spots all over the surface, thus making it unfit for feed.

We asked several farmers, who had had silos for years, what to do, but they did not know what would remedy it. Some said to water it lightly. That did not seem to be of much use.

Then we wrote the O. A. C., Guelph, about it, and found they had had no experience along that line. Nevertheless we thought we would lose it anyway, and that watering could not make it any worse than it was. We put up a pulley and rope, filled several barrels with water and just poured it all over the top until the water had soaked or wet the ensilage down about a foot or probably more. This lasted a week or more and the ensil-

age began to spoil again, so we wet it well again, and that has stopped it.

Whenever we notice the silage getting a little dry on top we apply a little more water, but not in such large quantities. Now we have fine ensilage and the cows are eating it up clean.

As we get many useful hints from reading Farm and Dairy we thought that our experience might be of use to others.

Distributing Weeds a Crime

"Inspector," Calgary, Alta.

It is now a crime in Alberta for a farmer to allow noxious weeds to grow on his farm and thus seed the farm of one of his neighbors. At Clares-



A Combination Rack Adjusted for Stock

holm recently a farmer, Mr. Flitton, brought action against his neighbor, Mr. Strange, for damages because wild mustard had been allowed to grow with no attempt at restraint on the latter's farm. Judge Walsh, before whom the case was tried, allowed Mr. Flitton \$632 damage.

This decision is strictly in accordance with Alberta law; and in my opinion Alberta law should be the law of all the rest of the Dominion. On the old home farm down in Ontario we had a neighbor who grew the finest crop of sow thistles in all the country round. At one season of the year the seeds were carried from his land to ours in such quantities as to almost resemble a snow storm. And we had no redress.

That man caused us losses each year amounting to many dollars. On the whole we must have



The Same Rack Ready for the Hay-Field

The combination hay, grain and stock rack seen in these two illustrations was designed and made by W. C. Good, Brant Co., Ont., the Master of the Dominion Grange. Mr. Good, who may be seen in both illustrations, is a practical and successful farmer, and also finds time to interest himself in the affairs of his country. Did you read his article on page two of Farm and Dairy last week?

—Photos by an editor of Farm and Dairy.

spent many hundreds of dollars trying to keep down the sow thistle the seeds of which were so plentifully supplied us from across the line fence.

At that time there was nothing in Ontario law to prevent that man from growing as many weeds as he liked. I don't believe that there is yet. It is certainly discouraging to try to keep clean fields when you have no check on your neighbors.

The decision of Justice Walsh will do much to frighten untidy farmers in this province into keeping down the weeds. A similar law and a similar decision in Ontario would I know be welcomed by hundreds and thousands of the best farmers in that province. The same applies to the other provinces of Eastern Canada.

Summer Feeding Methods

H. B. Colwell, Hants Co., Ont.

During the hot days of summer, the cows are often better in the barn during the heat of the day than out in the pasture. In the cooler days of early summer the cows do most of their feeding in the day time, but in the hot weather they seek the shade during most of the day and feed at night. If there be no shady nooks in the pasture then the cows are forced to put up a continual fight with myriads of flies with the resultant decreased showing at the pail.

The conditions that I have mentioned were just about what I had to contend with and were responsible for the methods that I adopted when I commenced feeding soiling crops. When the days are cool I put the cows in the stable about four o'clock in the afternoon. They receive a good feed of oats, peas and vetches, which make up my stable soiling crop, and after being milked are turned out to pasture again. If the pastures are doing pretty well, this is the only feed they get. They are brought into the stable again in the morning and turned out immediately after milking.

During the very hot weather I stable the cows at noon or shortly after and give them their green feed then. They remain in the stable until after the evening milking. When the pastures get real short I haul in a larger supply of green feed and give the cattle an extra feed when they are stabled in the morning.

Calves on Pasture

E. F. Eaton, Colchester Co., N. S.

Shall we turn spring calves to pasture? If my answer were to be determined by the general practice as I see it in this part of the country, it would be a decisive, Yes. But I believe I can improve on the general plan.

Did you ever see a bunch of star-gazed, unthrifty looking calves wandering around a shadeless pasture suffering all kinds of torment under a hot sun and putting up a losing fight against the clouds of flies that torment them. I have; dozens of times. I wonder how the owners of these calves expect them to develop into strong bodied, efficient milk cows. Here is one case where practice is no indication of desirability.

In my own herd the most of the cows freshen in the fall and the calves, grown up and thrifty after several months of good care in the stable, are able to go on to the grass, make the most of it and continue to thrive. The few spring calves that I have, however, spend the spring and summer in the stable. I used to let them run in pasture, but now I know better. In the stable with the windows darkened during the hot part of the day the calves are cool, free from flies and have what I consider ideal conditions for growth. I have noticed time and again that late spring calves under my management will go ahead and in the fall when I do turn them on grass for a month or so, be larger than the early spring calves of many of my neighbors.

Even in the case of the fall calves I do not depend altogether on grass. Through June and the early part of July the calves generally get enough grass to keep them growing nicely, but from then on they are fed green feed as are the milk cows. Likewise they are fed grain, ground oat with a little oil cake being a favorite mixture.

I do not believe in raising calves according to nature. I believe in developing them according to the best plans of man.

My idea is to treat the corn right and then it will treat me right.

The care of the

CARE, perfect also present time. Being on ter men. I had one part carbolic "vet." at the last and within one night about half the part well saturated. This was repeated hours, after which evil. This dries up on it an impervious plated as far as it is. That is the form that appeals to me.

THE MAR

A writer recently ing of the beneficial the licking by the n must have been ge with cows and calves never seen a mare lick over; in fact, no one that just to show h The mare should be long as she will, an gets up will be very a drink of warmed w The foal is better also, and it is curious will dose if the he down. A foal is b kept like that for the of an hour, after wh strong that it can s without dashing ite much. When strong it may be taught to

TEACHING

This is generally o actually do it until I could not find the nip keep wheeling round under her nose, one after she should push must be a sharp pus pushes steadily the fo is kept near to the s find its way there itse It is not easy for a twist its head to one teaches it to find the tion is one I have n No one need be anxio the test for some ho better if they are not If the foal had tried, given up trying to suc in this way.

COAL, E

A basin of hot water emptied, leaving it to be milked into it, he would suck the finger or so. Then it should towards the mare. T round the mare's tip and beyond the udder he will follow to the u to transfer its sucking teat.

The assistant should

MANAGEMENT OF THE FOALING MARE AND SUCKLING FOAL

By Leica.

The care of the Mare and Foal from birth to a few days old dealt with by an English Authority. Observations drawn from practical experience.

CARE, preparturition condition, and every wise precaution at the time are the best insurance of minimum losses at foaling time. Being only too thankful to learn from better men, I had a bottle of 12 parts colloidion and one part carbolic acid ready, as advised by our "Vet." at the last birth we had on our farm, and within one minute of birth the navel was tied tightly about half an inch from the body, and the part well saturated with the mixture.

This was repeated after 12 and again after 24 hours, after which there is little fear of joint evil. This dries up the cord so quickly, and forms on it an impervious casing that the foal is immunized as far as inimical germs are concerned. That is the form of insurance that appeals to me.

THE MARE

A writer recently was speaking of the beneficial effects of the licking by the mare, but he must have been getting mixed with cows and calves. I have never seen a mare lick a foal all over; in fact, nothing more than just to show her fondness. The mare should lie and rest as long as she will, and when she gets up will be very grateful for a drink of warmed water.

The foal is better to lie still also, and it is curious how one will dose if the head is laid down. A foal is better to be kept like that for three-quarters of an hour, after which it is so strong that it can soon get up without dashing itself about so much. When strong on its legs it may be taught to suck.

TEACHING FOAL TO SUCK

This is generally overdone, and I should never actually do it until I was convinced that the foal could not find the nipples. As the mare is apt to keep wheeling round so as to have the foal just under her nose, one should hold her head, the other should push the foal to the udder; but it must be a sharp push in the direction. If one pushes steadily the foal hangs back. If the nose is kept near to the flank, it will in all probability find its way there itself.

It is not easy for a foal to suck, for it has to twist its head to one side. The instinct that teaches it to find the teat in such a difficult position is one I have never ceased wondering at. No one need be anxious if the foal does not find the teat for some hours. Lambs always go on better if they are not filled with milk too soon. If the foal had tried, and after some hours had given up trying to suck, then I should teach him in this way.

OAK, DON'T PUSH

A basin of hot water should be brought in and emptied, leaving it hot. Then the mare should be milked into it, the foal's lips wetted until it would suck the finger tips, and take half a pint or so. Then it should be enticed by the fingers towards the mare. The arm should be passed round the mare's thigh, between her hind legs and beyond the udder to the foal's mouth. Then he will follow to the udder, and it is not difficult to transfer its sucking from the fingers to the teat.

The assistant should not push the foal. I have

seen one pushing the foal's body, with him backing for all he was worth, and the other with two hands trying to force the head into position for sucking. This is ridiculous. In the case I am recording the foal sucked in half an hour. Then, when we had seen that its bowels were open, we left it for the night, leaving a lantern hung up out of reach, so that the place was light. The place itself was a roomy bay of a barn, well bedded, which gave ample space. The feeding trough was taken out, for nothing must be left to chance.

REMOVAL OF PLACENTA

There is only one other thing of importance. A mare, after an easy parturition, usually expels the placenta very quickly, it often falling from



A Dual Purpose Though Not A General Purpose Team

These pure-bred Clydesdale plows, owned by Mr. Russel Stewart, Northumberland Co., Ont., may be here seen performing at the plow,—purpose No. 1. The progeny of mares such as these bring in a nice little revenue,—purpose No. 2. The two purpose mare is a better investment than the all purpose mare.

her as soon as she gets up. But if it does not come away of itself within two hours a vet. should be sent for. Forcible removal is beyond the average layman, and it cannot be too widely known that the retention of the after birth, even for a few hours, often with a cast mare means foot fever, and this often leads to the death of both, and at least a ruined foal and a permanently crippled mare.

In cold and snowy weather it may not be possible to get the mare out for a few days. If so, she should have grass mowed for her and chaff and corn. Her bowels should be watched. As a rule she wants nothing more than her usual food, which should be of the light order, crushed oats and best sharps being as good as anything.

SUNSHINE A GOOD TONIC

An hour or two of sunshine should not be lost, for nothing invigorates the foal so much as this. When leading the mare out one should be behind to keep the foal back when passing through a doorway, or he might get pinched. A broad mare going through an ordinary door does not leave much room for a foal by her side. A paddock grass and it should be such that there is plenty of best is no chance of the foal getting hurt. Ponds with nasty banks, barbed wire, and anything else that suggests itself as being a remotely possible source of injury, should be looked for.

The mare should never be turned out with other horses, even those that she has been running with up to the day. Nothing excites the cur-

(Continued on page 11)

The Working Horse in Summer

Jas. Armstrong, Wellington Co., Ont.

I have four teams to do my farm work and if I do say it myself they stand up to their summer work better than any other teams in our section of Wellington county. I would not need to say this myself if any of my neighbors were around for it is generally admitted. My success I attribute largely to my system of feeding.

Outside of feeding too scant rations, I believe that the most common mistake made on our farms to-day is the feeding of too much hay to the working horse. I have heard that it takes almost as much energy to digest timothy hay as there is in the hay, and I believe that this statement is about true. It may be alright to feed an idle horse lots of hay, but for the working horse the proper place for hay is as a filler and not as a source of nutriment.

HOW I FEED

My plan is to feed about as much cut hay as will go into a half-bushel basket morning and noon. This seems like very little, but when supplemented with a good feed of mixed oats and corn, the horse gets the wherewithal all day and does not waste energy trying to digest unnutritious food and moreover does not have to carry the hay around with it. At night I feed with hay more liberally. Our horses do not work at night, I keep a driver for the boys, and they have an opportunity to digest hay at ease.

On the average for hard working horses weighing 1,500 lbs. we feed the equivalent of 12 to 15 quarts of oats a day. Occasionally a little barley is substituted for the oats, one quart of barley being equivalent to two quarts of oats. Corn I feed regularly. It is cheaper than oats

in comparison with the nutriment contained, and while my horses may not show as much vim under corn feeding, they move along just as fast, keep in better condition and get the work done. I would not advise having the ration more than one-half corn by weight.

COME FROM FIELD TO WATER

Another place where the average farm team suffers during the summer is from infrequent watering. I believe in going to a little trouble to do this job right. The horses run in the pasture at night where there is water available all the time. After the morning feed and before going to the fields I always offer them water whether they take it or not. If the day is very hot I would take them in once or twice in both morning and afternoon to get a drink and would water them before putting in the stables at noon and before going to the fields again in the afternoon.

A little water frequently given is much better than two or three large draughts in the course of a day. It may look like a lot of trouble to come from the field to the water trough, but I am convinced that it pays and that you get more work done in the long run. If the fields were distant from the water I would take a cask along on a stone boat.

A COMING BUTAL TO TWO QUARTS OATS

I have always ideas on horse management to be considered a crank. Here is another. I believe that a good currying once a day is the equivalent of two quarts of oats. When the horses

(Continued on page 11)



Over the hills to the poor-house he goes in a heavy money-burning monster. But can you afford to spend ridiculous sums for Automobile travel when a Ford will carry you in comfort, style, safety and record time at minimum cost?

More than 275,000 Fords now in service—convincing evidence of their wonderful merit. Runabout, \$675; Touring Car, \$750; Town Car, \$1,000—f.o.b. Walkerville with all equipment. Get interesting "Ford Times"—from Dept. G., Walkerville Factory, Ford Motor Company of Canada, Limited.

FARM MANAGEMENT

Why the Spreader Pays

By Wm. Galloway.

Nene of us, if given a big gold nugget, would pay it out in chunks knocked off at random without regard to the size or the value of the chunk. Instead we would try and convert it into the most convenient form for making it go as far as possible and getting the greatest amount of value out of it. The random method would seem foolish almost to the border of insanity; still that is exactly what many of us are doing with the gold nuggets of fertility, which we expend upon our farms.

The best of hand spreading, under the most favorable of conditions, leaves spots that are bare of fertility while only a little way from them will be chunks of broken manure that are worse than wasted because the soil under them will be saturated with the

Anent Alfalfa and Corn

Would alfalfa grow on sandy land best seeded to fall wheat? or top dressing with fine manure and drilling the seed in with a grain drill? What kind of ensilage would our native yellow corn make, about the best sown to get ripe and hauling them and putting the stalks in the silos? C. W. M., Norfolk Co., Ont.

We have seen several splendid fields of alfalfa seeded on fall wheat. The plan advocated by several who have been successful in growing alfalfa in seed in the spring and then draw a light weeding harrow over the wheat. We would not advocate drilling the seed as it might be buried too deeply. If alfalfa has not been previously grown on the field, it would be wise to inoculate the seed.

Native corn that will come to maturity would make first-class ensilage, but no ensilage can be considered good that has had the ears taken off. Better results will be secured on the whole by cutting the ears into the silo. The trouble with small native varieties of corn is that the yield is rather small. We would suggest that you try some of

Good Mon

"The crop" was addressed by Mr. C. W. M. at a meeting of the Agricultural and Experimental Farm's home in the high growing district in this district. Variegated alfalfa is best and best variety covered. About gentlemen imported alfalfa seed from the small area that crop has grown now thousands of Lake Erie countries. In his article several countries show what a profit farmer mentioned has a 12-acre field four years ago. In 12 acres, he secured cash hay from the



One of the Best Friends of the Boy on the Farm

Where the farm boy whose back has not ached many times spreading manure? The youngest son of the Bolger, Oxford Co., Ont., here seen on top of his All he does is drive the team; the machine does the rest. Note also the litter carrier; another friend of the boy who is less treading a wheelbarrow.

Photo by an editor of Farm and Dairy.

the larger varieties, such as Compton's Early in the flints and Wisconsin No. 7 or White Cap Yellow Dent in the Dent varieties.

Fertilizer for Alfalfa

I have a piece of reddish loam soil not very rich in fertility and pretty dirty as yet, which I am going to sow to alfalfa. Would it be alright to work this ground until about the first week in July and what fertilizer could I purchase, and in what proportion should it be applied? Would an application of lime be advisable?—E. R. Egan Co., Ont.

Alfalfa, to give the very best results, should be sown on land both rich in fertility and free from weeds. On the field in question we would suggest that you work this field through with the disc and drag harrows until about the first of July and then sow alfalfa without a nurse crop of about 20 lbs. of inoculated seed to the acre. We would strongly advise that the seed be inoculated.

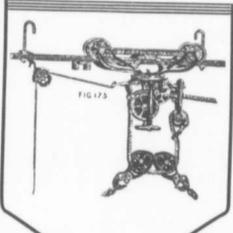
It may be that your poor success with alfalfa in the past has been due to a lack of lime in the soil. If the soil has showed any tendency to become sour it would be well to make an application of lime at the rate of 1,000 lbs. to the acre. An application of 400 or 500 lbs. of basic slag to the acre, along with 150 lbs. of sulfate of potash, would probably meet the fertilizer requirements of the crop, although it is difficult to give anything but a very general advice on fertilizing. The basic slag is to be preferred as a phosphate fertilizer for alfalfa in that it contains quite a large percentage of lime.

A cranky sow is a hard proposition to handle, and makes a poor mother. Have the sows tame and controllable.

Bloodsucking Mites

the most insidious enemy of the poultry yard. Kill the pests before they find you.

FRATT'S LIQUID KILLER FOR PRAIRIE DIABETICANT. Guaranteed. Dues the fourth with Pratt's Powdered Lime Killer. 100-page poultry book in THE PRATT FOOD CO. OF CANADA, LTD. TORONTO, ONT.



strong juices to the point where plant growth is literally strangled while the unabsorbed portion lies above the surface to evaporate and escape into the air.

THE SPREADER'S GREATEST VALUE

The manure spreader is as much a necessity to all crops to-day as is the seed-tester. It prevents the over-feeding of some spots upon the field, the starving of others. It is a great labor-saver too, but that has been to some extent unfortunate because it has focused the attention to that feature and made people overlook the far greater mission of better distribution. With the spreader every portion of the ground receives its own share of plant food; there are no chunks paid at random at the expense of the hungry spots between. This is as it should be. No one can afford to throw away the manure pile on the farm any more than he can afford to squander the price received from the crop. Every particle of the pile represents a definite value; it should be considered as the food portion for some definite patch of ground. We are clearing the land of its fertilizer and the plant of its food if we do not put it there.

A good manure spreader pays as certainly as good seeds pay; just as surely as it pays to give out only value for value from our gold nugget rather than to throw our wealth in any kind around with a reckless hand. A spreader is one of those farm implements that has to be tried before it is fully appreciated and that is unfortunately appreciated wherever it is tried.

I received my premium camera Monday night and am highly pleased with it. It is much better than I expected it would be.—W. G. Conley, Chateaugay Co., Que.

The Car That Cuts Work In Half

A special trip on this car releases it from the stop block independent of the bundle. This saves all the work required with other cars to raise the bundle away up to the car.

Draft wheel is twice the diameter of any other so that it will lift heavy loads as easily with double power as other cars will lift with triple power.

Tifton Sling Car

Has a powerful malleable truck frame, and strongest working parts throughout. No springs to get out of order. Weighs 38 lbs. and will handle loads. Works equally well with forks or slings. No barn is complete without a Tifton Sling Outfit. Ask your dealer or write us today for catalogue and prices.

Beatty Bros., Ltd. 663 High St. Victoria, B.C.

Mention Farm and Dairy when writing.

A Pure Wholesome Nutritious Meal

CALFINE

CALVES LAMBS COLTS PIGS

GUARANTEED ANALYSIS

Protein . . 20 per cent.
Fat . . . 8 per cent.
Fibre . . . 4 per cent.

Save \$15.00 to \$20.00 on Your Calf Feed

Write for Booklet and Prices

CANADIAN CEREAL AND FLOUR MILLS, LIMITED
Toronto, Ontario

CANADIAN PACIFIC

HOMESEEKERS' EXCURSIONS

Each Tuesday, until October 20
WINNIPEG AND RETURN . . \$35.00
EDMONTON AND RETURN . . \$45.00

Other Points in proportion.
Return Limit, two months
HOMESEEKERS' TRAIN leaves Toronto 2.40 p.m. each Tuesday, May to August, inclusive. Best Train to take.

UPPER LAKES NAVIGATION

Steamers Leave Port McNicoll, Mondays, Tuesdays, Wednesdays, Thursdays and Saturdays, for SAULT STE. MARIE, FORT ARTHUR and FORT WILLIAM.
The Steamer "Manitoba," sailing from Port McNicoll on Wednesdays, will call at Owen Sound, leaving that point 10.30 p.m.

STEAMSHIP EXPRESS

leaves Toronto 12.45 p.m. on sailing days, making direct connection with Steamers at Port McNicoll.

General change of time June 1st

Particulars from Canadian Pacific Agents or write M. G. MURPHY, D.P.A., C.P.R., Toronto.

W'y Not

Mr. R. M. Imman, Egan Co., Ontario, states that he has handled, after a most successful season, their own home

seven tons in the a total of 32 tons of as bran for feed, and this with two tons for labor in harvest.

Another farmer to alfalfa. Part of it sold out in the land in 1910 when the best yielding crops loads were harvested, manged of the nine the crop was 25 loads of cattle were pastured. In 1912 the same crops of 22 loads, eight loads; or, a Mr. Putnam valued at \$15 a load, the high price of reasonable valuation this basis, the crop acres was worth \$6 than the value of three years mentioned produced 84 loads of at \$12 a load, gave value of over \$1,000.

Another six-acre year at \$15 a load, every year in the 30 tons of alfalfa the acre and alfalfa eight cows one summer sold gave a nice profit. From the acres he obtained 14 Mr. Putnam said on all days citing in

Good Money in Alfalfa

"The possibilities of alfalfa as a money crop..."

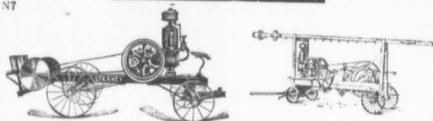
making alfalfa fields, but that he would mention only one more. For the last two seasons a 15-acre alfalfa field has yielded crops as follows: Two tons, two and one-half tons and three-quarters of a ton to the acre, or an average of five and one-quarter tons an acre from 15 acres. The second cutting one year was threshed and the seed sold for \$212.

"Where can you find a more profitable crop?" said Mr. Putman in conclusion, "than that alfalfa field that had been seeded for 15 years, had received no fertilizer or manure in all that time and at the end of that period was in better condition than at the beginning. There is lots of land in this province not considered valuable that if planted to alfalfa would double and treble in value."

Impressions of England

"I am glad to say that dairying in Ontario is as far advanced as that branch of agriculture is in this country," writes Mr. R. Reed from England to Farm and Dairy. Mr. Reed who

Ontario Wind Engine & Pump Company's LINES ARE SUPREME

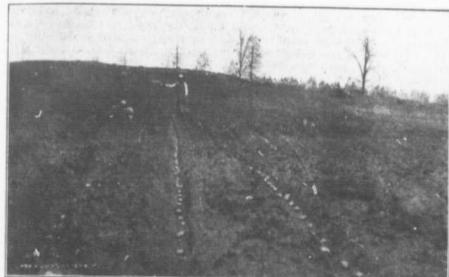


Economize

The only part of the hog that the modern packer does not sell is the squeal. Some say it is left on the farm for the man who buys the light weight, cheap, mail-order machines.

Buy the O. W. E. & P. Co.'s Engine, Windmill, Grinder, Saw, Scale, Tank, Trough, Pump or Well Drill, and bury the squeal.

If your dealer does not handle our lines, write the ONTARIO WIND ENGINE & PUMP CO., Ltd., at Montreal, Toronto, Winnipeg or Calgary.



Why Not Go a Bit Further and Grow Them Commercially?

Mr. R. M. Inman, Elgin Co., Ont., may be here seen planting the small acreage of alfalfa that is characteristic of the Ontario farm. And your potatoes, properly handled, are a most profitable crop with which Ontario farmers don't even supply their own home market. There is room for expansion in this industry.

seven tons in the second cutting, or a total of 32 tons of hay, just as good as bran for feed, from a 12-acre field and this with no expenditure except for labor in harvesting.

Another farmer seeded nine acres to alfalfa. Part of this area was killed out in the land adjoining a creek. In 1910 when the alfalfa had already been yielding crops for five years, 21 loads were harvested from what remained of the nine acres. In 1911 the crop was 25 loads and 12 head of cattle were pastured for six weeks. In 1912 the same field yielded three crops of 22 loads, seven loads and eight loads; or, a total of 37 loads. Mr. Putman valued the alfalfa that year at \$15 a load and considering the high price of mill feeds his is a reasonable valuation. Figuring on this basis, the crop from the nine acres was worth \$555 or \$120 more than the value of the land. In the three years mentioned that field had produced 84 loads of alfalfa and even at \$12 a load, gave the entire crop a value of over \$1,000.

Another six-acre field now seeded 15 years and yielding good crops every year in the past, produced 30 tons of alfalfa and 15 tons to the acre and also pasture for eight cows one month. In 1911 this same field gave a crop of 15 tons of alfalfa hay and 12 bushels of seed. The seed alone being worth \$150. In 1912 the owner of this six-acre field plowed up an acre and harvested from it the best crop of potatoes he ever grew, and from the remaining five acres he obtained 14 tons of alfalfa.

Mr. Putman said that he might go on all day citing instances of profit

was for years secretary of the Canadian Jersey Cattle Breeders' Association, is now permanently located in England. His comments on agriculture in that country are interesting.

"I have had the pleasure," he writes, "of visiting several farms during the past few weeks. Yesterday I spent a very pleasant day on a dairy farm in Worestershire took place. Some 60 head were offered, all registered in the E. J. H. B. The prices, which were considered very good, averaged 30 guineas (\$120) for heifers and cows in milk. One bull brought 125 guineas (\$625) and the best cow 71 guineas (\$355). Both were very fine specimens that bred, a little larger than the Island types."

"The market here demands a different quality of butter to that which we produce in Canada. There is little or no sale in the U.S. The price is from 25 to 50 cents a pound. I have also found that when you order Cheddar cheese at the high class restaurants you are invariably handed good Canadian cheese, which retails here at about two pence a pound less than the English Cheddar cheese. It is difficult to distinguish except by a Canadian."

I am very much impressed by the great possibilities of our northern country for developing the dairying business. I feel sure that no one could do the people a better turn than to get them reading Farm and Dairy so that the seeds of progressive dairying will be sown in good time to yield abundantly when the proper harvest time comes.—R. C. Fowler, Nipissing Dist., Ont.



FROST & WOOD BINDERS

THE famous F. & W. Binder has remarkable light draft, and is speedy. A strong steel frame keeps the moving parts in alignment. These parts are all equipped with roller bearings. You can readily see that you can cut more crop in a day, and save harvest wages, by such a quick-cutting machine.

The eccentric sprocket has long spokes to give power for compressing the bundle.

This eliminates the "chug" and "jar" you will notice in ordinary binders when tying. This is very hard on both the team and machine. It is the reason why F. & W. Binders give the owner long service.

Levers are so reachable, and the F. & W. is so well balanced that a boy or girl can operate it. There is no threshing of crop, no clogging in elevators, and no falling off in quality of work after the first season. The Frost & Wood is one of the very best binders you can buy. Investigate to-day.

IT HANDLES WHEAT RIGHT

HAVE you ever thought of the losses from sheeling in a binder? Look at the deck board in many machines. It is full of wheat and oats, the result of the straw. The Frost & Wood design has been refined carefully to cut out this loss. It handles the straw gently.

The upper elevator has three rollers over which the canvas runs. This gives the machine great adjustability in the elevators, so the heaviest or lightest grains can be handled satisfactorily.

WRITE nearest branch or office for the Frost & Wood book. A post card brings you one free.

THE FROST & WOOD CO. LIMITED Montreal, SMITHS FALLS, St. John, N.B.

For Sale in Western Ontario and Western Canada by COCKSHUTT PLOW COMPANY LIMITED BRANTFORD, WINNIPEG

mostly all been washed off by the rain the bugs were getting in their work. There was nothing to do but go at it again. We had no more than got started when down came more rain. This kept us from working for several weeks. In the meantime the ground had become so soft that we did not care to go on it with our heavy sprayer.

A NEW METHOD ADOPTED

Affairs were becoming desperate. We decided to get a Paris green "blower" and get after the bugs with it. By getting out with the blower between showers we were able to save the plants. One could walk between the drills at a fair pace and do half of two rows at a time. Although the amount of Paris green blown on the plants was almost imperceptible, it did the work.

This blower is manufactured by Ilsey and Harvey, Port Williams, N. S. It consists of a receptacle that holds a pound or more of Paris green, a blower and a delivery tube with two branches.

To sum up our experience in a few words: Arsenate of lead will destroy potato bugs under favorable conditions and when the plants are thoroughly drenched with the spray. By using as much as four or five pounds of the arsenate to 40 gallons of water it would probably give excellent results, but then it would be more expensive than the Paris green. We would like to know the experiences of other Farm and Dairy readers.

The Plum Curculio

The plum curculio or the "Little Turk" is a very bad enemy of plums and apples. It hibernates as a mature beetle, and when the warm days of spring come it is ready for its first meal on the swelling buds. Later on the female attacks the young fruit almost as soon as formed, puncturing the flesh of the skin, and making round holes. The characteristic crescent shaped mark.

Arsenate of lead, three pounds to 50 gallons of water, applied when the leaf buds are swelling, again when the blossoms fall, and again two weeks later, will hold this insect in check. If the arsenate of lead is combined with the self-boiled lime-sulphur, or with Bordeaux mixture, fungous diseases like shot-hole fungus of the plum and cherry, and scab of the apple, will also be kept within bounds.

Work of the Experimental Farms

The reports and bulletins emanating from the authorities at experimental farms are not read by everybody. It isn't every farmer that would find the time to study these numerous reports carefully. At the same time continually in government blue books out that no farmer can afford to be without.

A new bulletin designed especially to help this class of busy men and women, has recently been prepared by J. B. Spencer, B. S. A., editor of the title: "The Dominion Experimental Farms—A Review." In this bulletin the conclusions that have been reached during the 25 years that the experimental farms were under the directorship of Dr. Wm. Saunders. In this bulletin those valuable conclusions can be assimilated by a reader in just a few hours.

This bulletin is attractively bound and illustrated and would be a decided addition to any farmer's library. It can be had free on application to the Publications Branch of the Department of Agriculture at Ottawa. Every Farm and Dairy reader is urged to write for this bulletin.

POULTRY YARD

Poultry Notes

By Mrs. G. W. Bandlett

Have some way of telling the oldest eggs and keep them sold.

It costs no more to feed a hen that lays 60 eggs a year than one that lays 50.

Poultry should be kept off food 24 hours before being killed and dressed for market.

The poultry like fresh straw now and then just as well as the cow likes to be well bedded.

A hen is not lazy by nature and will surprise you in what she can do if given the right chance.

Keeping too many breeds is a poor way to succeed. One or two varieties given the best of care is best.

A poultryman that is too careless to keep the hen house free from vermin does not deserve to succeed.

Be sure to provide some shade in the runs or you will find that some of your chicks will not feather.

Chicks that have been drowned in watering tanks that someone forgot to empty would make a good sized flock.

Nearly every one can keep hens but can't hens do you unless you keep them? Hens do not pay unless you give them suitable care.

Poultry raising is what you make it. Lots of people make it drudgery by the attitude of mind rather than the amount of work they do.

The hens that are yarded should be given the lawn clippings. The daily ration is not complete without animal food in some form. Skim milk fed separately or with the mash furnishes a partial substitute for the meat ration.

If you do not like your breed change as soon as you can for you will never be successful with a breed you do not like. Do plenty of good thinking before you make the change as it is expensive not only in money expended but in the experience you have already gained with the breed you have.

Give the flock you have a square deal and be sure that the fault lies with them and not that you just want a change.

DUCKS

Indian Runners are good foragers and light eaters.

Ducks are never troubled with lice, neither do they have cholera or roup.

You will find the eggs not as fertile as you find the ducks grow thin.

Good houses, good feed, good tools, and cleanliness are four essentials of poultry keeping.

Duck raising is one of the most profitable branches of the poultry business.

For market purposes the Pekin duck is best. For eggs the Indian Runner takes the lead.

Keep a good cat or two around the poultry plant as it will save you lots of trouble with mice and rats.

Watch that the ducks have suitable attention and regular feed. A few well cared for pays better than too many that are neglected.

The Indian Runners grow very rapidly and begin laying early. They lay a large white egg. These eggs are very fine flavor.

Give the ducks plenty of air and water. Sprinkle sand over their food as this will be a sure way of them getting as much as they need.

I heard a remark in our home recently, while discussing the slow progress of farming in Egypt to the effect that we had better mail them a few copies of Farm and Dairy.—G. A. Harris, Hastings Co., Ont.

THICK, SWOLLEN GLANDS that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with



ABSORBINE

Book 3 K free. Also any Bunch or Swelling, No blister, no hair gone, and horse kept at work. Cost treated—only a few drops required at an application. \$2 per bottle delivered.

ABSORBINE, JR., antiseptic liniment for man-kind, reduces Cysts, Wens, Painful, Knotted Varicose Veins, Ulcers, \$1 and \$2 a bottle at dealers or direct. Book "Evidence" free. W. F. YOUNG, P.O. 125 Lyons Bldg., Montreal, Can.

EGGS, BUTTER and POULTRY

For best results ship your live Poultry to us, also any Dressed Poultry, Fresh Dairy Butter and New Laid Eggs. Egg crates and poultry crates supplied.

PROMPT RETURNS
Established 1855
Wm. DAVIES Co. Ltd.
Toronto, Ont.

Poodle Pups For Sale

Beautiful White Tag Silk Poodle Pups from a pound sire, pedigreed. 3 months old. Send for photo and prices.

Address

JOHN DOPP
46 Queen St. S.
BERLIN, ONT.

The Call of the North

Do you know of the many advantages that New Ontario, with its Millions of Fertile Acres, offers to the prospective settler? Do you know that the best agricultural lands, obtainable free and at a nominal cost, are already producing grain and vegetable crops to sell in the world?

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. MACDONELL,
Director of Colonization,
Parliament Buildings,
Toronto, Ontario

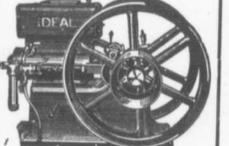
Baby Chicks

Order your baby chicks now from our splendid laying strain of SINGLE COMB WHITE LEGHORNS

Utility Poultry Farm
T. G. DeLAMERE, Prop.
STRATFORD - ONT.

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11 to 50 H.P.
Stationary Mounted and Tractor



WINDMILLS
Grain Grinders, Water Boxes, Steel Saw Frames, Pumps, Tanks, Etc.

GOOLD, SHAPLEY & MUIR CO., LTD.
Stratford Windsor Calgary

Buy from the factory

Save the Agent's profit

When it comes to fitting up the dairy stable you can save money by getting in touch with DILLON'S. Dealing direct by mail with the factory cuts the middleman's commission and gives you a better price. You can buy your stall equipment and stanchions at mighty interesting prices—well in fact, as the largest agent would have to pay—and the best quality goods at that.

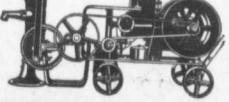
DILLON'S STALLS and STANCHIONS

Write for information and prices before you place your order for equipment.
H. DILLON & SON
We also make Hay Tools, Lister Cultivars, Burn Bow Harrows

PUMPING

With a "GOES LIKE SIXTY" Pumping outfit

No more backaches. No more waiting for the wind. The Gilson 60 P.P.D. is the ideal pumping engine. It "GOES LIKE SIXTY"—it is a portable power horse, ready to operate your wash machine, cream separator, churn, electric light dynamo, wood saw, feed cutter, grinder, pulper, etc. It is mounted on wheels, complete with line shaft, five interchangeable pulleys, and universal pump jack. The only engine fully equipped, ready to yield 100% service. A powerful durable engine, built to last a lifetime. The simplest engine on the market. A child can operate it.



Write for full particulars and also catalogue of pumps, pump jacks, wood saws, etc.
Gilson Manufacturing Co.
302 York St., Guelph, Ont.

be delivered; but this applies only to standard bred horses.

Brooders as a class are honest. They know that the purchaser of their stock expects to have the registration papers delivered to him and they, for the most part, have been doing so without any special arrangements being made beforehand. There are, however, a few men here and there who prefer to live up to the letter rather than the spirit of the law, and in isolated cases the deliverance of registration papers has been refused.

There is room for immediate legislation. Will Hon. Martin Burrell please take notice?

Apportionment of Aid

How does the government propose to spend the first installment of the \$10,000,000 voted for the extension of

AD. TALK

LXXXVI.

The Only Way to Win

It takes a little courage
And a little self-control,
And some grim determination
If you want to reach a goal.
It takes a deal of striving,
And a firm and stern set chin,
No matter what the battle,
If you're really out to win.

There's no easy path to glory,
There's no rosy road to fame,
Life, however we may view it,
Is no simple parlor game;
But its prizes call for fighting
For endurance and for grit,
For a rugged disposition
And a "don't show-when-to-quit."

You must take a blow or give one,
You must risk and you must lose,
And expect that in the struggle
You will suffer from a bruise.
But you mustn't wince or falter
If a fight you once begin,
Be a man and face the battle—
That's the only way to win.

Yes, that's mighty true! And it's quite that way in advertising.
The worth-while things are not usually easy. They require an effort and a deal of courage to obtain.
But when the reward does come,—how much more welcome and appreciated it always is because it costs something both in money and in effort!

If you have "the goods" appealing to the prosperous dairy farmer people,—quality people with big incomes, such as we reach almost exclusively with Farm and Dairy,—you are sure of "being in right" when you appeal to them through your advertisements placed in these guaranteed columns.

Sometimes you will strike it exceedingly rich and get your results right easily. At other times it is barely possible that you may be disappointed. But at all times you are absolutely sure to win when working closely to the line as suggested by the unknown author, quoted above, and you have your ads. in Farm and Dairy.—
"A Paper Farmers Swear By"

agricultural education at the last session of the Dominion House? Word comes from Ottawa that the amount to be expended this year will be \$500,000, half of which will be paid over immediately to the Provincial Ministers of Agriculture and the balance as soon as the Federal government is satisfied that the provinces are spending the money for the purposes specified.

Ontario's share on the per capita basis is \$175,733; that of Quebec, Brunswick, Nova Scotia, \$34,288; New Brunswick, \$24,509; British Columbia, \$27,334; Manitoba, \$31,730; Saskatchewan, \$34,296; Alberta, \$25,004.

The vote of \$175,733 for Ontario is to go in part for the following specified purposes: For a field husbandry building at the Ontario Agricultural College, \$40,000; for district representative lives in educational work, \$22,500; poultry work, \$10,000; milking Shorthorns, \$12,500; fruit work, \$9,000; short courses, \$7,000; Eastern Ontario Live Stock Association, \$10,000; special grants for agricultural exhibition buildings, \$10,000; agricultural work in public schools, school gardens, etc., \$10,000; drainage work, \$5,000; live stock in Northern Ontario, \$5,000; Women's Institute, \$3,500; dairy survey, \$2,000; Western Fair Association, London, \$7,000; Ontario Veterinary College, additional land, \$15,500.

The Working Horse in Summer

(Concluded from page 5.)
come in at night I allow them to dry off and then see to it that each teamster runs over his team with a curry comb before bed time. A horse must certainly spend an uncomfortable night when the sweat is allowed to dry in a hard casing all over the body. The next morning the teams get a good combing.

And here is one of the most important points of all in summer horse management. Feed in proportion to the work done. I do not care how well the farm is managed there are hours, by day, and perhaps weeks, when the horse is not working up to its capacity, or perhaps is in total idleness. It is a mistaken idea to suppose that if we keep up the work rations for hard work when it does come. I reduce the feed in proportion to the work done even when the idle period is for only one day. Saturday night for instance, the rations are reduced and the grain feed given on Sunday morning and at noon is only about half of the regular ration with a full feed again at night.

In the fields I believe in keeping the team moving all the time rather than rashing them along and then giving them a short rest. It is keeping everlastingly at it that covers the greatest acreage in a day.

The Foaling Mare and Suckling Foal

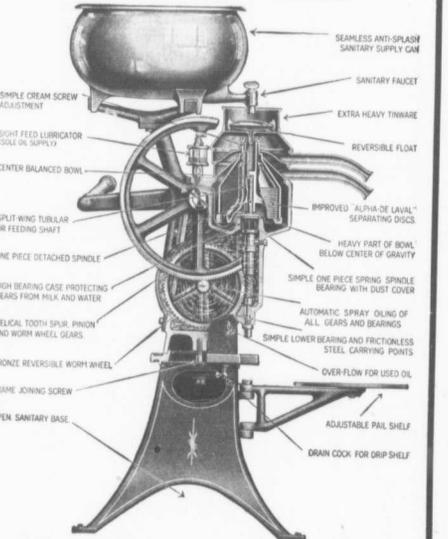
(Concluded from page 5.)

osity of the others like a fool, and a crowd round, mad with excitement. The mare, being over anxious to defend the foal, kicks out at them, and may give the foal an unlucky knockout blow. I saw one such case last summer, a grand foal ruined.

A foal must not be allowed to get wet whilst young. I know that many do and arrive it; but I have seen a foal struck into a chill on a wet day after it was a month old, from which it took months to recover. Horses just now are realizable stock, and the brood mare and her foal should have unceasing care.—Farmer and Stock-broder.

DE LAVAL
The Best Constructed Cream Separator
EVERY year the superiority of the De Laval over all other cream separators becomes greater. Every year the De Laval offers separator buyers a better machine than the year before.

Note the improved features of the latest De Laval machines as shown in the illustration below, representing the very latest and best in cream separator design and construction.



The new De Laval catalog just out explains in detail the advantages of De Laval design and construction and why the De Laval is superior to all other cream separators. It will be mailed free upon request to nearest office.

DE LAVAL DAIRY SUPPLY CO., LIMITED
MONTREAL PETERBORO WINNIPEG VANCOUVER

"STOP! HERE'S A DYER FENCE!"

Do you want a strong durable fence—one that holds back the strongest animal, and lasts for years? DYER has it, guaranteed. 17c per rod up, freight paid. Lawn fence. Yes, it's cut this ad., out and mail to me. Send me the "Fence Man, Dyer Co., Toronto." Please send me your four special fence sale offer. I want to see these fences and I want the best, but this does not obligate me to buy.
Name and Address.....
DYER says: "A one cent postal to me NOW means many a \$1 saving to you!"

Hollow Tile—Steel Reinforced

is proof, weather proof, practically everlasting—the most permanent type of building construction known.
NATCO EVERLASTING SILO
is built of hollow vitrified tile blocks. It cannot burn, cannot be blown over, will last a lifetime without a cent for repairs. Glazed sides keep silage sweet and palatable. Any man can build it and it will give an air of progress and prosperity to your farm that will be worth much to you.
Our Illustrated Silo Book
is full of valuable information for stock feeders and laymen. It is written by authorities and should be read by every farmer. Send for free copy today—ask for catalogue.
NATIONAL FIRE PROOFING COMPANY
OF CANADA, LIMITED
Traders Bank Building, Toronto, Ontario



Farms, Lots, Homes and Business Places for Sale, Exchange or To Rent
Our Motto:
J. T. O'CONNELL & CO.
SPECIAL AGENTS
For Real Estate Bargains
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Ask for our Printed List
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HELP WANTED

to work on Dairy Farm. Male and female. Good wages. Yearly engagements.
M. SHANTZ Ayr, Ont.

NOTICE

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Sometimes a renewal subscription is sent us but the initials are given differently. In this way sometimes two copies are being forwarded to the same person.

Sometimes a subscription is renewed at a new address in the former address not mentioned. In this case we would send copies to both addresses and bills to the old address.

If you are getting a copy, or bills when you have paid up, there is some mistake. In this case please send us a card giving as much information as possible, so we can locate the error. Labels from the two copies will often help us. Many Thanks for this!

FARM AND DAIRY



CHALLENGE COLLARS
Acknowledged to be the most convenient of Water-proof Collars ever made. Ask to see, and buy no other. All places or direct for 25c.

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The Berlin Creamery Co.
Berlin Ontario

APICULTURE

Control of Swarming

As the swarming season is now upon us it may not be out of place to give a few notes referring to the control of swarming. Why do bees swarm?

Most natural thing in the world, some will say; then why do not all colonies of bees swarm? The fact that all hives of bees do not swarm, is sufficient proof that the swarming is not quite natural. The prime cause of swarming is the congestion of the population of the hive, and by the restriction of the functions to be performed by the inmates of the hive. The queen is restricted in her egg-laying, the working bees are restricted in their functions of storing supplies and in the general work of the hive; setting eggs, nursing the young bees, etc.

WHY QUEEN LEAVES

The queen is a powerful force in herself. She generally begins laying eggs in the spring, commencing from the centre of the comb and working outwardly until she herself in her work, occupies the greater part of the hive, while the ordinary bees, beside nursing the eggs of the queen

removing the two outside combs in the hive, and separating those remaining so that there will be space for the two combs in the centre of the brood nest. This operation will prevent the queen from laying eggs until she must be replaced in 10 days, when it must be repeated, and so on, until our experience, the bees will work in the supers without any further attempt to swarm.

PRODUCTIONS

It would be well to remove any queen cells that may have been formed before inserting the empty combs, and it should be mentioned that the bare sheets of foundation does not have the same effect as "drawn-out combs."

As a further means of the control of swarming, ample ventilation—without draught—should be provided by raising the hive off the floorboard with wedges three-eighths of an inch thick. Partial shade in the middle of the hottest days of June and July will help to make the bees more comfortable and contented.

If the above hints are carried out carefully and at the proper time, little swarming will be the result, and the beekeeper will get far more money with much less work, than if the bees are allowed to swarm naturally and then be controlled. Vernon "News."

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion. Address all letters to The Cheese Maker's Department.

Referee of Weights Only

Editor, Farm and Dairy.—In your issue of June 12th the report of the Royal Commission on Cheese and Butter Weighing is referred to in the Cheese Department and the statement is made that the appointment of an official referee at Montreal. Please allow me to correct that statement. The report does not recommend the appointment of an official referee. The nearest to that recommendation in the report is that "a competent official should be appointed upon the control of the Dairy and Cold Storage Commission, with headquarters in the city of Montreal who shall be charged with the duty of investigating the weight of cheese when complaints arise." In other words the Commission recommended the appointment of an inspector of cheese and butter weighing, which, of course, is quite a different matter to an official referee.—J. A. Ruddick, Commissioner.

Cheese Jobs

Green cheese is due largely to the greed of the patron.—H. Hodgson, Montreal, Que.

The water supply of many of our cheese factories is not all that it should be. Many troubles met with in the production of A. 1 cheese can be traced to impure water.—R. W. Ward, Dairy Instructor, Peterboro Co., Ont.

The greatest loss in yield from over-ripe or unsound milk is not in the whey, but in the cheese. The cheese contains less moisture and therefore a smaller weight of cheese is obtained.—G. G. Publow, Chief Dairy Instructor, Eastern Ontario.

In the year 1912 it took .06 per cent less milk to make a pound of cheese than in the previous year. This farmer of Ontario.—G. G. Publow, Chief Dairy Instructor, Eastern Ontario.

Creamery De

Butter makers are in contributions to this department to ask questions on matters relating to butter making and to suggest subjects for discussion. Address all letters to The Butter Maker's Department.

Factors in Butter

Good raw material is an important factor in the production of good keeping butter. The cream in the butter should be of high quality. Prof. Cooper says:

The use of a good cream in making butter is of great importance. By adding a large number of acidulic acid producing bacteria to the cream, the butter will keep longer. It will then be chiefly lactic acid, and the cream will be of better quality than the cream which is not so treated.

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Creamery Department

Butter makers are invited to send contributions to this department, on such questions as a matter relating to butter making and to suggest subjects for Creamery Department.

Factors in Butter Deterioration

Good raw material is the most important factor in the manufacture of a good keeping butter. In a recent article in the Creamery Journal, Prof. W. H. Cooper mentions several other factors that go to determine the keeping qualities of creamery butter.

The use of a good starter will assist in making butter of better keeping quality. By adding to the cream a large number of actively growing lactic acid producing bacteria, we can also overcome the undesirable kinds already present. The fermentation will then be chiefly lactic, and checking or lessening the organisms tending to lower the quality of the butter.

In this connection pasteurization will be of great aid, a thorough heating of the cream killing practically all germ life. This gives a clean field to the lactic acid bacteria then added to the cream. However, pasteurization cannot make a poor or dirty cream clean although it can greatly improve its quality. This is true of sweet cream as well as of cream of poorer quality.

ACIDITY

The amount of acidity developed in the cream will have an effect upon the keeping quality of the butter. At present it is generally held that butter made from cream ripened to the point of acidity will keep better than that made from highly ripened cream. Recent tests have shown that sweet cream butter possesses excellent keeping qualities. Some Canadian investigations have given the same results, and they state that the absence of fermentations, desirable or otherwise, tends toward better butter keeping quality.

The purity of the wash water used will influence the keeping quality. Pasteurization and starters can do little good if the butter is washed with contaminated wash water. The bacteria found in such waters are usually of very undesirable sorts.

The writer met with one case in which the butter, scoring normally 52 to 53, began to drop to 86 or 88 after being held for a few days. The fault was traced to an unprotected creamery well; changing this soon brought the quality back to normal. When a pure, clean water cannot be secured pasteurization of the wash water may be advisable.

CLEAN SALT NECESSARY

Good clean salt is necessary. Salt is readily tainted and so must be handled with care. Experiments by the dairy division show that a lightly salted butter possesses better keeping qualities than heavily salted butter. Heavier salting often appears to intensify and bring out off flavors. The Michigan station has shown that certain yeasts, which may cause deterioration of butter to some extent, grow best in from 15 to 25 per cent brine; such strength is hardly lightly salted butter.

There is little, if any, relation between the water content of butter and its keeping quality, provided that general methods have been used in its manufacture. Overturning, or any process injurious to body, might lessen the keeping quality.

GOOD CREAM; POOR BUTTER

Workmanship is important. A careless maker could easily make poor butter from good cream. An improperly washed or dried churn, careless wash water, pasteurizers, and other utensils could quickly effect this.

of the butter both tend to increase the sugar and casein content; a larger number of bacteria are also incorporated, all of which tend toward a butter of poor keeping quality. Overworking incorporates air; underworking will not distribute salt evenly.

"Temperature of storage is a very important factor. Bacterial or other life is inhibited by low temperature, although not stopped entirely or destroyed even by freezing. The same is true of any chemical action. So whether deterioration is due to bacterial or to chemical actions, such changes will be greatly retarded by low temperatures. Comparatively low temperatures, 32 to 40 degrees, are necessary to hold butter for even short times.

Through chilling of the butter after packing and before shipping is necessary. A short exposure to high temperatures may unfit the butter for storage purposes. For shipping, well food cars should be insisted upon. Too many buttermakers neglect these points, with the result that the butter arrives at the market of poor quality and with but little keeping quality.

An airy room in which the butter is held—refrigerator or at its stage—should be clean and sweet, free from odors and mustiness. Even at low temperatures butter will absorb odors readily; the only remedy is to avoid such odors. Prompt removal of the butter after removal from storage is best; any food product is apt to deteriorate rapidly on removal after holding for any length of time in storage."

Reduce Work One-third

C. F. Whitley, In Charge of Records, Ottawa

A decrease of labor with no diminution of income, but with general improvement of results, is a combination which appeals to any one. Labor-saving machinery and thoroughly efficient machines might just as well be used by dairy farmers as by any manufacturer. So the questions come: Have we efficient cows? Do they save or make work? Are they so good that they decrease both comparatively and actually the necessary amount of labor in keeping cows, and at the same time increase the income? Every dairy farmer needs to answer such questions as applied to this herd, and he can answer them satisfactorily when he keeps dairy records.

A statement made by the Dairy Division, Ottawa, regarding Ontario cows last year, that six dairymen are keeping sixteen cows to do the work of ten. So it is quite possible to cut down work one-third, and rejoice because possessing more efficient cows. To the scrap-happy with the old junk!

A Quebec dairymen after one year of cow testing writes the Dairy Division that he now gets as much milk from his 32 selected cows as he used to get from his larger herd of 42 cows. Ten inefficient were banded. Dairy farmers have not time to waste working for poor cows, so make sure that each one pays.

The Value of Corn

J. H. Shepperd, North Dakota Agr.

Corn fodder furnishes more digestible roughage per acre than any other forage crop grown in America. Shredded baled corn fodder sells for the same price as the Chicago market as meadow hay. It is a good roughage for horses, wholesome and usually free from dust.

Ensilage from corn is a standard feed for dairy cattle and is good for beef cattle and sheep. It supplies a good substitute for fresh pasture grass in winter. A succulent feed of this sort is a great help in keeping up the milk flow in winter.

Corn is the best fattening grain known and is relied by all classes of live stock.

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If interested you should write us Toronto Creamery Co., Ltd. TORONTO



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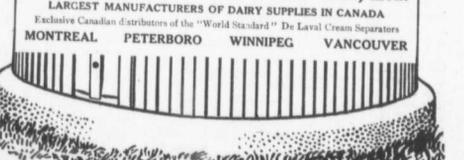
The "lucky" dairyman is the man who takes advantage of every opportunity to increase his milk or cream production without increasing his feeding cost, and who leaves no stone unturned to make every cow he owns produce the last cent of possible profit.

That's the kind of "lucky" cow owners you'll find with Ideal Green Feed Silos on their farms. They know that a good silo pays for itself the first year and after that is all clear profit.

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GO to sleep with a smile on your face. It will make you more beautiful every year.—Larson

Rose of Old Harpeth

By MARIA THOMPSON DAVIES
Copyright, 1912, The Bobbs-Merrill Company
(Continued from last week)

I COULD move out the molojin in to the kitchen and give 'em the parlor, and welcome, too. Mis' Poteet she put in and asked for Stom to bed down on the pallet in the front hall with Tobe and Billy and Sammie, and I was a-going on to plan as how Mr. Tucker and Mr. Crabtree was stay together here, and I knew Mis' Plunkett would admire to have Rose Mary herself, but just then she sudden put her head down on my knee, her pretty arms around me, and held her right without a tear, while I couldn't do nothing but rock back and forth. Then Mis' Poteet she cried the top of Shoofly's head so soaking wet it give her a sneeze, and we had to laugh. But she never answered me what they was a-going to do, and why, know, Cal Rucker, I ain't sleep things thinking about 'em, and where they'll move, have I?"

"Now, you shore ain't—nor let me neither," answered the poet in a depressed tone of voice.

"I mighter know that Miss Vinye woulder taken it up-headed and a-lined it out in the scriptures to suit herself until she wasn't deep in the grieving no more," but little Miss Amanda's a-going to break my heart, as tough as it is, if she don't git comfort soon," continued Mrs. Rucker with a half sob. "Last night in the new moonlight I got up to go see if I hadn't left my hair waist out in the dew, which mighter faded it, and I saw something white over in the Briar's yard. I went across to see if they had left any wash out that hadn't oughter be in the dew, and I found her in her little, short old night-gown and big slipper with the little worn-out grey shawl 'round her shoulders a-digging around the Maiden Blush rose-bush, putting in new dirt and just a-crying soft to herself, all trembling and hurt. I went in and set down by her on the damp grass, me and my rheumatism and all, took her in my arms like she were Potee, and me and her had it out. It's the graves she's a-grieving over, we all a-knowing that she's leaving buried what she have never had in life, and I tried to tell her that no matter who had the place they would let her come and—"

"Oh, darn him, darn him! I'm a-going clear to the city to git old Gid and beat the liver out of him!" exclaimed young Bob, while his sun-browned face worked with emotion and his gruff young voice broke as he rose and walked to the door.

"I wish you would and I'll make Cal help you," sobbed Mrs. Rucker into a corner of her apron. Her grief was all the more impressive, as she was, as a general thing, the balance-wheel of the whole Sweetbriar machinery. "And I don't know what they are a-going to do," she continued to sob.

"Well, I know, and I've done de-

ided," came in Mrs. Plunkett's soft voice from the side door of the store, and it held an unwanted note of decision in its hushed cadences. A deep pink spot burned on either cheek, her eyes were very bright, and she kept her face turned resolutely away from little Mr. Crabtree, over whose face there had flashed a ray of most beautiful and abashed delight.



Enthusiastic Grangers Who Are "Making Things Go"

One of the liveliest granges in Ontario is the Apple Grove Grange of Middleton, Regina county. Here are the officers responsible for the progressive policy of the grange. The methods adopted in this grange to keep up interest were described in the June 26 issue of Farm and Dairy.

—Photo, courtesy Miss Mattie Robinson.

"Me and Mr. Crabtree were a-talking it all over last night while Bob and Louisa Helen were down at the gate counting lightning-bugs, they said. They just ain't no use thinking of separating Rose Mary and Mr. Tucker and the rest of 'em, and they must have Sweetbriar shelter, good and tight and genteel, offered outen the love Sweetbriar has got for 'em all. Now if I was to marry Mr. Crabtree I could all good and proper move over to my house and that would leave his little three-room cottage hitched on to the store to move 'em into comfortable. They have got a heap of things, but most of 'em could be packed away in the barn here, what they won't let us keep for 'em. If Mr. Crabtree has got to take hold of my farm it will keep him away from the store, and he could give Mr. Tucker a half-interest cheap to run it for him and that will leave Rose Mary free to help him and tend the old folks. What do you all neighbors think of it?"

"Now wait just a minute, Lou Plunkett," said Mr. Crabtree in a radiant voice as he came out from around the counter and stood before her with his eyes fairly glowing with his emotion. "Have you done decided yourself? This is twist me and you,

and I don't want no Sweetbriar present for a wife if I can help it. Have you done decided?"

"Yes, Mr. Crabtree I have, and I had oughter stopped and told you, but I wanted to go quick as I could to see Mr. Tucker and Rose Mary. He gave consent immediately, and looked like Rose Mary couldn't do nothing but talk about you and how good you was. I declare I began to get kinder proud about you right then and there, 'fore I'd even told you as I'd have you. And the demure little widow cast a smile out from under a curl that had fallen down into her bright eyes that was so young and engaging that Mr. Crabtree had to lean against the counter to support himself. His storm-tossed single soul was fairly blinded at even this far sight of the haven of his double desire, but it was just as well that he was dumb for joy, for Mrs. Rucker was more than equal to the occasion.

"Well, glory be, Lou Plunkett, if that ain't a fine piece of news!" she exclaimed as she bestowed a hearty embrace upon the widow and one almost as hearty upon the overcomer Mr. Crabtree. "And you can't wait till you've tried what a pleasure and a comfort a second husband can be if you manage 'em right. Single folks a-marrying are likely to gum up the

your flapjacks peaceable and better 'em all with smiles!" and Mr. Tucker beamed on his friend Crabtree, who wound one of his wife's apron strings all around one of his long fingers a blit he had that amused him and he knew in his secret heart tenser her.

"Now just look at Bob tracking down Providence. Read 'em looking like a partridge in the wheat in Louisiana Helen. They've got lowly young dream so bad they had oughter have a-singing away for it," and the poet cast a further glance at the widow, who only laughed and looked indulgently down the road at the retreating form of the gawky young Adonis.

"Hush up, Cal Rucker, and go be gin choppin up fodder to feed your come supper time," answered his wifery usual attitude of brisk generalship coming into her capable ways and eyes after their setting under the strain of the varied emotions of the last half hour in the store. "Lars me and you got movs and broom and begin a-cleaning up for Mr. Crabtree before his money comes, and you want to go over her things before you marry him anyway, and I'll help you. I found everything Cal Rucker has hid disagree, with Mr. Satterthwaite so neat, too. And not at all losing the flame of embarrassment that emanated itself from the face of the widow to that of the sensitive Mr. Crabtree. Mrs. Rucker descended the steps of the store, taking Miss Plunkett with her, for to Mrs. Rucker the state of matrimony, though bold as still an institution in the realm of realism and to be treated with respectful frankness.

Meanwhile over in the barn at the Briars Uncle Tucker was at work roofing up the foundations upon which had been built his lifetime of leadership over his fields. In the middle of the floor was a great pile of ends and ends of old barn-boards, empty grass cans, broken tools and scraps of tin. Along one side of the floor stood the pathetically-piled old implements that told the tale of patient sardony every cent even at the cost of much greater labor to the fast weakening old back and shoulders. A new pair of pants had meant a dollar and a half so Uncle Tucker had put forth an extra strength to drive the nail one along the furrows, while even the grindstone had worn away to such an extent that each revolution made made only half the impression it had once pressed to its rim and this called the sharpening to take twice as long and twice the force as would have been requisite and so on over the grindstones, too, cost cents and dollars, and Uncle Tucker had borne his patiently, even hopefully, until the very end. But now he stood with his hand in his hair, his eyes for all the world like the increase of Father Time called to face the first day of the new regime of an arctic eternity, and the bewilderment in his eyes out into Rose Mary's heart was an edge of which the old had become since become incapable.

"Can't I help you go over this Uncle Tucker?" she asked softly with a smile, looking for him even though the mist his eyes were too dim to discover in hers.

"No, child, I reckon not," he answered gently. "Looks like it be me to handle all these things I be used to put ticks in on ours or a good farm deal. I was just a-senioring how many big clover crops I'd mowed down with this old blade here."

I laid it by to go riding away from on that now-forgotten road that led out there that broke down in forty five years, while this old friend had served its twenty-odd and now is put for (as many more with careful being.

(Continued next week)

The Upwar

When Trouble

Was there ever a time when you were a time now, faces you? The long and the old home is over-stated must pass to there. The furniture, gathered so many years, almost which is clear from so must be sold to pay God having called the Himself, those left can used the daily needs.

Will you read over thoughtfully that comfort of the Widow of Zareph (17: 9-16). Evidently the child's need was very time of drought, the small, "a handful of meal and a little oil in a cr..."

What a vivid story what anxious fear that have watched that supply day by day! Now, it's a handful left, and no way are more!

When Elijah asked how will you do start holding. But when he heard of bread she cried the Lord thy God liveth in a barrel and a little oil in a barrel. I am gathering that I may go in and d...

Five

The Upward Look

When Trouble is Nigh

Was there ever a time in your life, is there a time now, when real need faces you? The long struggle to save the old home is over, and the homestead must pass to the hands of others. The furniture, gathered together for so many years, almost every piece of which is dear from some association, must be sold to pay the mortgage. God having called the breadwinner to Himself, those left know not how to meet the daily needs.

Will you read over prayerfully and thoughtfully that comfort-giving story of the Widow of Zarephath, 1st Kings 17: 9-16. Evidently the mother's and child's need was very great at that small, "a handful of meal in a barrel, and a little oil in a cruse."

What a vivid story that is! With what anxious fear the mother must have watched that supply diminishing day by day! Now, there is only a handful left, and no way of obtaining any more!

When Elijah asked her for water, how willingly she started to do his bidding. But when he asked for a morsel of bread she cries out, — "As the Lord thy God liveth, I have not a cake, but only a handful of meal in a barrel and a little oil in a cruse; and behold, I am gathering two sticks, that I may go in and dress it for me

and my son, that we may eat it and die." How the Lord words portray her utter hopelessness!

One can imagine her amazed bewilderment when she heard Elijah's next command, "Fear not; but make me thereof a little cake first and bring it in, and after, make for thee and for thy son. For thus saith the Lord God of Israel, The barrel of meal shall not waste, neither shall the cruse of oil fail until the day that the Lord sendeth rain upon the earth."

Notice that before the command, came that wonderful encouragement, "Fear thou not."

"And she went and did according to the word of Elijah." Did she go, in hesitating doubt, or in joyful certainty? Whichever way, however, "the barrel of meal wasted not, neither did the cruse of oil fail."

The most beautiful part of the story is that, while in her great despair she was making her simple preparations for their last, scanty meal, every minute help was coming nearer. Is that not the greatest comfort? Now, at the very moment, when we are most anxious, discouraged, depressed, knowing not what way to turn, God has His own plans for our deliverance. Help is on its way. So, instead of being anxious we must be peaceful, instead of discouraged, confident, instead of depressed, hopeful, sure that we are going to know what is best and right to do, trusting ever in "His help in the hour of greatest need." — I. H. N.

Contented Children

Where we see a happy, sunny natural child we may rest assured that it is not a spoiled one. It has been taught, very early, the lesson of giving up its own inclination to the will of others, and has learnt to be useful in its little way. A child who feels

Promise Yourself

- To be so strong that nothing can disturb your peace of mind.
- To talk health, happiness and prosperity to every person you meet.
- To think only of the best, to work only for the best and to expect only the best.

—Larson in "Eternal Progress"

of use to its parents and playmates has an immense moral advantage over others who live entirely for themselves.

Did you ever read the poem of the mother who, tired and weary, took up a little garment to mend, and found that the rent had been gathered together in a terribly clumsy way? But it had been done by her wee daughter. "Dear child! she wanted to help me," the mother said, and can we not imagine the pride and joy of that child when her mother lovingly kissed and thanked her for her "help?" And could any mother worthy the name, reprove the little one, for her help, making the work of repairing, more

complicated? A wise mother will look at the motive, and will rather encourage than repel such attempts at "helping."

A child brought up in such a home cannot fail to be sweet tempered and happy, and it only means a little careful training at an early stage of its life.—Ex.

Just Common Folks

We cannot all be wealthy, beautiful or famous in the world, but all can be good, useful and happy.

People in the common walks of life are apt to think that they are of no importance—a most erroneous idea.

The obscure comes in contact with other fellow beings, and leaves an influence for good or ill. Then the best things in life are as often possessed by the poor and humble as by those moving in the highest society.

Money cannot purchase our love, a pretty face is not always the sign of a noble character.

Fame is not a symptom of happiness. Though your name be not known outside your own community, it may live forever.

A helping hand extended to those in need; a word of kindness and sympathy to a soul in sorrow or despair; the influencing of an erring brother to lead a higher life, are deeds that never die.

In the realms of immortality they will rise up and "call you blessed." — Western Farmer.



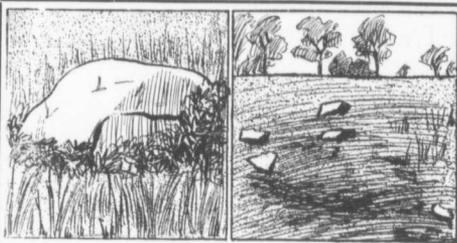
Always the cookbook says:
"Sift Your Flour."
 No lumps, you see. *Aerates* the flour, making it lighter.
 Put FIVE ROSES in your sifter.
 Never soft and sticky — never lumpy, musty, woolly.
 Never coarse.
 Milled superfine from *Manitoba's* grandest wheat.
 Fine, granular, very dry.
 Nothing remains in the sifter—FIVE ROSES is free, heavy.
 And your bread is more porous, more yielding, more appetizing.
 And more Digestible.
 Because the particles are finer, easier to get at by the stomach juices.
 Use this very fine flour—*superfine*.
 FIVE ROSES.

Five Roses Flour

Not Bleached



Not Blended



Boulder Before and After Blast

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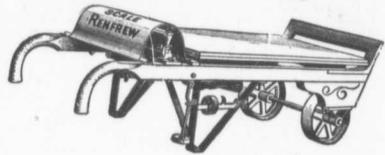
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Cattle buyers are pretty wise. They are pretty shrewd guessers. When they buy by guess they usually guess better on **their** side than on yours. But when you sell your cattle by actual **knowledge** instead of "hit-or-miss" it's a fair shake for both and you get all that is coming to you every time.

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