

# MICHIGAN FARMER

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## FARM NOTES.

### Handling Green and Stable Manure.

I have a twenty-acre piece of sandy loam soil that was planted to beans last season, and this season is receiving an application of 250 lbs. per acre of high grade commercial fertilizer. Will be sown to oats and seeded with red clover. The clover is not to be cut for hay or feed and is not to be pastured but is to be plowed under. Would it be possible to get a crop of seed and if so, what method would you advise? I also have about ten acres which will be planted to corn this season. Balance of farm is in tree fruits. Will have manure from town during the summer, but have no vacant ground on which to spread it and will be obliged to store it until fall. Kindly advise best way to handle all of the above propositions to best advantage.

Allegan Co.

SUBSCRIBER.

Where it is desired to use clover as a crop for green manure and get a crop of seed from the land, the best method of handling it is to pasture the clover early in the season, or clip it back about the first of June, or both, as may be thought advisable. In a normal season this gives the seed crop a little better chance than where the first crop is removed for hay, at least unless the hay is cut very early. In a good season the blossoms will be more likely to escape the attacks of the clover midge, and the weather is more likely to be favorable for harvesting the crop than by handling in any other way. If a good seed crop is secured this would be quite a profitable way of handling the clover crop on this land. But if the field does not bloom well, the crop could still be cut for hay if desired.

It is a doubtful proposition, in the writer's opinion, whether it would pay to let a good crop of clover go back on the land without cutting it at least once, either for hay or for seed. If the hay crop is cut early the aftermath will usually be more plentiful than if the first crop is allowed to stand without cutting, so that a very good growth will go back on the land, and that removed as hay will be just as valuable for manure after it has been utilized for feeding stock and returned to the field in the form of stable manure; indeed, it will be more valuable if plenty of grain is fed with it in the ration to the live stock from which the manure is made. In the writer's opinion the ideal way to handle the clover crop for the improvement of the land is to cut a crop of hay from it as soon as the blossoms begin to come out, then allow the aftermath to grow and remain on the field undisturbed until the following spring, when it may be plowed down for corn or potatoes. This will furnish the soil with more humus than would be the case where a crop of seed is harvested, and will give a maximum of benefit in the addition of nitrogen to the soil. If the second crop fills well for seed it will probably pay to harvest it, but if there is not a good crop of seed and what matures is allowed to go back on the land and is plowed under early the following spring much of it will lay dormant in the soil and will help to make a thick stand of clover in future years when

the land is again seeded. For these reasons if this problem were the writer's he would handle the clover crop in this way, cutting the first growth for hay as early as practicable, and harvesting the second growth for seed or letting it go back on the land as might seem advisable when it can be determined how well it has filled. The clover roots alone will add a good deal of humus to the land, and the manure which can be made from feeding the clover hay to live stock on the farm, supplementing the same with a liberal grain ration will be of more benefit to the soil when returned to it than would the clover if allowed to go back on the land without harvesting a crop or securing a benefit from it other than that of supplying additional humus to the soil.

In the handling of stable manure which must be stored over summer, about the best that can be done is to pile it in compact piles, with as straight sides as possible and a flat top, wetting it occasionally if necessary to keep it from heating and using a little land plaster as an absorbent, or better still, using floats for the same purpose, thus adding plant food to the manure as well as conserving what is already in it. Of course, there is bound to be a considerable loss in bulk and a very noticeable loss in

eaten by cattle and other stock, but since it has become so generally distributed thru its prevalence in clover and grass seed it has come to be considered a bad weed. Its season of flowering is from June to September, and of seeding from July to September, so that few plants will mature seed before the first crop of clover is cut for hay. The vigorous and early growth of the clover will hold the plants back, but as soon as the clover is cut they are there ready to send up seed stalks and commence the process of maturing seeds, which is continued until fall. If it is thought best to eradicate it the ground can be plowed after the hay crop is removed and sown to some catch crop, such as dwarf Essex rape for late pasture or fitted and sown to fall grain. But this latter process will generally interfere with the regular crop rotation, and so far as the writer is concerned he would not break up the crop rotation to get rid of it. Any weed that the stock will eat is not so very dangerous and where the cultivated ground is sown to spring grain or rape for the purpose of reseeding, as is the writer's practice, there need be little fear of its occupying the land in the next hay crop. The same is true where fall grain is sown after cultivated crops or on a summer fallow.

of seed matured not a little and plow in the regular rotation for some spring crop the following year just as tho the weed were not present, as on most soils it will not prove a very troublesome pest since it will be eaten quite freely by the stock. Care should, however, be taken not to sow it in the clover or other grass seed, in which it is becoming more and more prevalent.

### Destroying Weevil.

I would like to know how to get rid of the little bugs that get in beans.

Newaygo Co.

E. B. S.

The best way of eradicating weevil from beans or grain is to fumigate with carbon bisulphide. This is done by pouring the liquid into shallow pans on top of a tight bin or box in which the grain is stored, using from one to one and a half pounds of the liquid to each hundred bushels treated. In case the bins are deep a more thoro job will be done if some of the liquid is introduced into the bin by means of a gas pipe, so as to be certain that the gas will penetrate to all parts of the bin. In case the granary in which the beans or grain to be treated is large, sufficient of the liquid should be used to treat the granary if full. This is a very volatile liquid and care should be taken to keep away from it with a light of any kind after treating and until thoroughly aired out. The bin, or granary, should be closed as tightly as possible for 48 hours after the treatment, when it should be opened and thoroughly aired. In case the grain is in a tight bin it may be closely covered with papers to prevent the escape of the gas, which is heavier than the air and will settle into the grain. After the treatment is concluded it will be found necessary to move the grain and fan it out in order to prevent heating, in case the weevil have been plentiful.

The effectiveness of this remedy for weevil has been thoroly proven both at experiment stations and in a commercial way, and the use of one pound to 100 bushels has generally given entirely satisfactory results. Some years ago the writer had a successful experience in its use. The weevil made its appearance in a granary in which several hundred bushels of rye was being carried over. This was treated

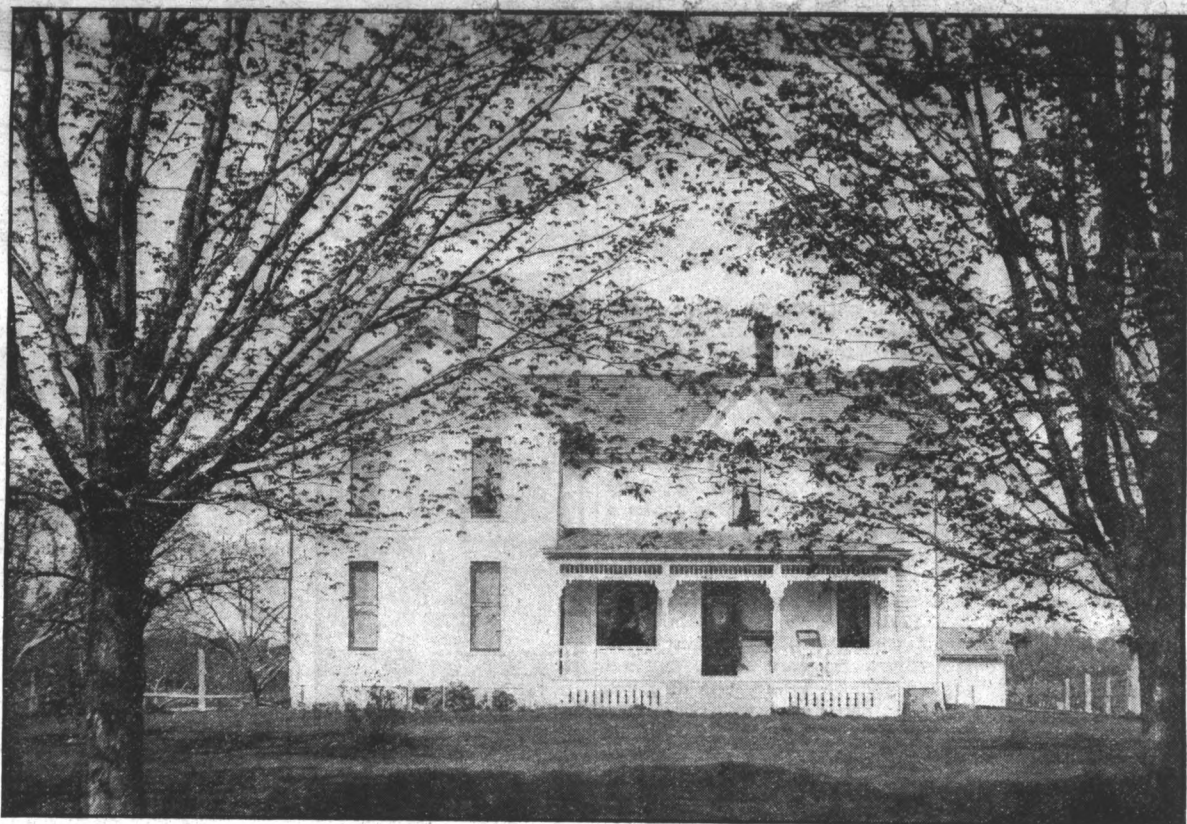
in the bins with this liquid at the rate of one pound to 100 bushels of rye, the granary being nearly full. After the fumigation the grain was removed and cleaned, when part of it was sold and the balance again stored in the granary, which has never been infested with weevil since that time. It should be borne in mind, however, that the granary should be made as nearly air tight as possible, and that the success of the treatment will depend not a little upon how well the gas is confined to it during the process of fumigation.

### Winter Barley.

I see by the U. S. Crop Reporter that Roumania raises winter barley. Do we have such a crop in Michigan or the United States, and where can we get it? Midland Co.

J. L. SAGE.

We have no knowledge of winter barley having been grown in Michigan. Winter



When the Maples Are Springing Into Leaf at Prospect Hill Farm, Tuscola Co., Home of Mrs. Ellen Purdy.

plant food from any method which could be employed in holding manure over summer in this way, but the method outlined is the best that can be used without providing a more or less expensive equipment in the way of manure pits and cisterns for the purpose.

### Buck-horn.

I have a field of new seeding to June clover which has considerable buck-horn scattered thru it. Now, would I profit by cutting early, before the weeds had seeded, and plow the ground and sow to peas or rye, then manure next winter for corn.

Gratiot Co.

C. S. LOUGHERY.

Narrow leaved plantain, commonly called buck-horn, rib-grass, rib-wort, etc., in different localities where it is plentiful, is a perennial or biennial. It was not formerly thought to be a very bad weed, owing to the fact that it is readily

The plant seeds liberally, and, of course, some of this seed will lie dormant in the ground for a considerable time and be on hand to germinate when turned to the surface, but it does not survive cultivation well, and we have never seen it very prevalent in pastures. Some years ago this plant was very plentiful along the roadside in the writer's community, but with the advent of favorable seasons for the growth of the June grass it practically disappeared. Where one desires to grow clover seed it is, of course, the wise thing to eradicate it, even at the cost of the stand of clover. If the plants are not too plentiful they can be cut out with a sharp spud shortly after the hay crop is removed. But for the general farmer it is questionable if the better plan would not be to pasture the field after haying, thus reducing the amount



oats have been tried here with varying results. The U. S. Department of Agriculture is at the present time conducting some experiments with winter oats in Michigan, thru the co-operation of a prominent Jackson county farmer, and it is probable that valuable information with regard to the adaptability of this grain to Michigan conditions will be forthcoming when the experiments under way have been completed. This information would also indicate whether winter barley could be successfully grown in Michigan or not. But in the meantime there would seem to be little to be gained by privately conducted experiments along this line, as the staple spring grain crops are filling the average requirements quite satisfactorily.

#### Millet as a Forage Crop.

Being a reader of your most valuable farm paper, would like to ask you a few questions. I have cleared a few acres here in Manistee which I have been thinking of putting in German Millet, as I have the millet seed, but I understand it is hard on the ground, as this ground is of a light sandy nature and so that by mixing clover seed with it, it would be all right, but don't know how much of each to mix. I would want this for hay, or if you know of anything that would be better for hay and for the ground I would be very thankful to you as I am a new beginner here and a little short of cash.

Manistee Co.

L. B.

While millet can be used as a hay crop with fair results, where sown on a well prepared sandy loam, it is not a suitable crop with which to seed to clover. If necessary to have the hay the millet may be more profitably sown alone after the cold weather of spring is past. Millet is a little hard on the soil because it is a shallow rooting plant which draws its nutriment from the top few inches of surface soil. Oats and peas make a good forage crop where they can be sown early, but in a normal season they should be sown earlier in the season than the middle of May. This, however, is not a normal season and there will be many acres of this crop sown after this date. But having the millet seed, if the hay crop is more to be desired than the seedling it would be as well to sow the millet. On the other hand, if it is desired to get a seeding of clover it would be better to sow to oats and seed.

#### LILLIE FARMSTEAD NOTES.

Another late spring, with entirely too much rain, has prevented us from getting our crops in in season. The oats are sowed at last. We finished on the 6th of May, but we still have 25 acres of oats and peas to sow and the land is too wet at this writing to work to the best advantage. However, this spring is a little different from any other spring that I ever experienced. While we are late in sowing the oats, all vegetation is late. The trees are not leaved out. Grass has made but little start, and I do not see why oats do not stand as good a show as grass in making a crop this year. If the season was well advanced and we had been prevented from putting in crops from too much rain, the case would be different. The season is not advanced, consequently, I shall attempt to carry out the plan of the crops this year completely.

The criticism of Mr. Lawson and several other farmers has influenced me to make an experiment in the alfalfa this season and I will sow only a portion of the field with the other grasses and sow the balance of the field to alfalfa alone. I do not think I shall use any nurse crop at all. Upon reflection it does certainly seem that this would be a better way than to sow it all to Dr. Beal's mixture, but while I think considerable of Mr. Lawson's judgment on this matter, I think more of Dr. Beal's judgment in the matter of growing grasses in the state of Michigan than of any other man in the state. I do not believe he would have recommended this unless he had thought it out carefully and unless he had drawn his conclusions from actual experience. I know the man too well to think anything different. Since my original idea of sowing some alfalfa in this way, I have purchased more land and I now have an eight acre field to experiment with, consequently I shall sow four acres to Dr. Beal's mixture and four acres to alfalfa alone. I plowed this land in April as it is sandy and we could get on this field before we could on the rest of our land. Nothing farther has been done by way of fitting this. My intention is to put on a ton of lime to the acre and then about 500 lbs. of a good grade of commercial fertilizer and sow the alfalfa as soon as we get our oats and peas in. Perhaps we will put in our sugar beets first. It will depend something upon the weather. Then I calculate to roll the land with a corru-

gated roller and top dress it with stable manure.

Another experiment that I am going to try, is to inoculate part of the seed with pure culture bacteria for producing the nodules on the roots, or in other words, inoculating the soil with bacteria which live upon the alfalfa roots, producing nodules which enables the plant to get free nitrogen from the atmosphere. Our experiment station is furnishing me the pure culture, and I am also experimenting along the same line with pure culture for field peas. I have noticed several times that when peas and oats are sown on land where peas were not grown before in the rotation, that the peas have not done as well as they have on other fields and I am inclined to think that it is because this bacteria is not in the soil. Consequently, since our experiment station has prepared this bacteria, I am going to inoculate ten bushel of seed as an experiment and have the pure culture on hand now from the experiment station and will try and give the matter my personal attention so that I will know and be able to tell the readers of The Farmer exactly what the results are.

COLON C. LILLIE.

#### FERTILIZER FOR RUTABAGAS AND MANGLES.

What mixture or formula of fertilizer should I use on rutabagas and mangles? Soil is clay loam, was fall plowed, was in peas last year. What would be the best way to apply it, broadcast or in drill, and how much to the acre?

Alcona Co.

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I would use just about the same commercial fertilizer for rutabagas and mangles as I would for sugar beets. In a general way a fertilizer would be needed that was comparatively rich in potash and phosphoric acid. I would think a fertilizer analyzing about 1 per cent ammonia, 8 per cent phosphoric acid and 4 or 5 per cent of potash would be one that would be hard to beat for these crops. The best way to apply it is to put it on broadcast when you are fitting the ground and harrow it in thoroughly. Get it mixed with the soil. This is much better and will give better results than to put it in with a drill with the seed. I would not use less than 300 lbs. per acre and it would be much better to use twice that amount; 600 lbs. per acre would be a fairly good liberal dressing for this kind of crop. It must be remembered that root crops yield an immense amount of matter per acre and just a little fertilizer cannot be expected to make very much of an impression or do so very much good on this sort of a crop. Put it on liberally and get a good crop.

#### NEW PEA BEAN.

The Alfred J. Brown Seed Co., of Grand Rapids, Mich., well known to the Wholesale Seed Trade as being extensive growers of Seed Peas and Beans, are introducing a new type of Pea or Navy Bean, which promises to be worth a lot of money to the Michigan bean grower.

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The Brown Seed Co. have been carefully growing this improved type for the past five years and it is no longer an experiment with them. The plant is of very robust growth, very hardy, and not only produces more beans, but of much better quality, being pure white and very uniform in size. The vine carries its pods well up on the plant so that very few, if any, come in contact with the ground, and very little or no handpicking is necessary. The crop is also very uniform in ripening, and matures ten days to two weeks earlier than the general crop.

The price, \$4.00, at which this new type of Pea bean is being offered is not high, for the reason that it requires less seed per acre so that the extra cost of seed per acre is not more than 25c. Any farmer can well afford to plant his entire crop to this improved type of bean, as it is not only a safe bean to grow, but produces a larger crop and of far better quality.

Several of the elevators thruout the state have these seed beans for sale. None genuine unless bags are sealed and contain our inside label. As there is only a limited amount of seed to be had orders should be placed at once or they can be reserved if spoken for soon. For further information, as well as a small sample of the beans, address Alfred J. Brown Seed Co., Grand Rapids, Mich.

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### Saves One Man's Labor

In addition to elevating the hay to the load the Dain Loader shoves it well forward where it can easily be taken care of by the man who is driving the team. Most Loaders require an extra man to receive hay from the machine and drag it to the front of the load.

You don't need to crawl under the wagon to couple or uncouple the Dain Loader. As it has a hinged tongue it can be easily coupled to a wagon of any height and can be uncoupled from the top of the load.

Each rake has an automatic spring trip that enables it to pass easily over any obstruction and fly back into place. For this

reason the rakes conform to the meadow surface without picking up trash or tearing up the ground.

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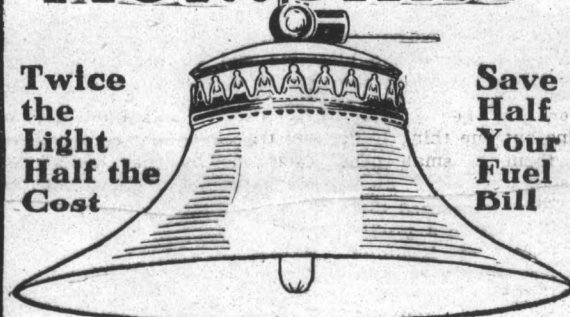


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## LIVE STOCK

DEVELOPING THE YOUNG BREEDING SWINE.

### The Boars.

The young boars that are to be developed for breeding purposes should be selected at weaning time and all of those that do not come up to a fixed standard of individual merit should be castrated and fattened for market. Breeders of registered swine do not use the knife freely enough among their male pigs. I know from experience that it requires nerve to use the knife freely in the pure-bred herd; but if a strict law could be passed and enforced compelling breeders to unsex every male pig that failed to come up to a required standard of individuality there would be less complaint among farmers concerning disappointments in the results obtained by the use of pure-bred boars in their herds of swine. Breeders should not fail to keep in view the real and not the fancied wants of the practical farmers and the feeders to whom it is a living interest to secure breeding animals that will yield large and speedy returns upon their investment.

The special care of the young boars should commence at weaning time, when they should be separated from the gilts and other hogs and placed in a yard away from all other hogs. Like the young gilts they need an abundance of succulent foods and better results will be obtained if they are allowed the run of a large yard or pasture where good clover, alfalfa or blue grass pasture is available.

If their yard, or pasture, is entirely away from the rest of the herd they will quiet down and make the best of the situation and the danger of having them off feed will be greatly reduced. If there are other hogs in the yard next to them you will be in a worse fix than ever. I would prefer to have them all running in one yard than to have them separated by a woven wire fence, for they will run along the fence and fight thru it, stop eating and go to fretting and chopping. When they get to that state there remains but one thing to do, and that is to put them in small pens, each one by himself, away from sight and hearing of the rest of the herd.

If they are running together and doing nicely, do not make the mistake of upsetting the quietness of the whole bunch by putting in a strange pig or two with them, for it is sure to upset the whole bunch and before you know it you will have a lot of fretting, chopping and restless young boars on your hands. It is quite a simple matter for a breeder of experience to go out and buy a uniform lot of evenly developed young gilts of about the same age, size, type and general appearance, but where would he go to find that many boars of uniform size?

Many young boars are ruined by ignorance in feeding or by not being properly handled by men who buy them after they get them home. It requires skill to buy a boar that is loaded with fat and reduce him in flesh until he is in just the right condition for breeding purposes. I think that most breeders will agree with me that a good, thrifty young boar just out of a good pasture will usually give better satisfaction than one out of a show herd at the country fair.

Give the young breeding boar as many kinds of food as it is possible to provide, but do not make the mistake of making sudden changes in his diet. Some kinds of stock foods are excellent to use in feeding to young boars in connection with farm grown foods, but a good run of forage crops and plenty of mixed grain and skim-milk form a ration that is hard to improve upon by supplementing any kind of medicated stock food. All of the present day buyers of breeding boars demand plenty of bone, muscle and constitution and if your hogs possess these, together with flesh, and you give them good, intelligent care and attention, you are absolutely sure of selling them at good prices. If there is any one thing that shows the true index of the breeders' skill it is a bunch of smooth, evenly developed young boars.

New York. W. MILTON KELLY.

### BIG WEIGHT FOR LAMBS AT BIRTH.

I have seen several articles in Michigan Farmer concerning large litters of pigs, and that I would see if anyone could beat my pair of grade Shropshire twin lambs, dropped April 24, which weighed 34 lbs. Saginaw Co. GEORGE FRY.

### INCREASING PREVALENCY OF ANIMAL TUBERCULOSIS.

The reports of the Bureau of Animal Industry of the United States Department of Agriculture, indicate that tuberculosis among live stock is steadily increasing, as shown by the number of animals found affected at the various slaughtering centers. The increase in the number of cases found is due in part, but only in part, to the increased efficiency of the method of inspection. The meat inspection figures show that nearly 1 per cent of cattle and over 2 per cent of hogs slaughtered are tuberculous, which is surely an alarming condition.

Feeding experiments conducted by the Bureau have proved conclusively that hogs are readily infected thru the ingestion of feces and milk from tuberculous cows. There is therefore, no doubt that the prevalence of the disease in hogs could be greatly reduced by simply eradicating it from cattle.

Considerable testing of cattle has been done in Washington, D. C., and vicinity for the purpose of assisting the district authorities in obtaining a pure milk supply, and of obtaining for the Bureau further information regarding the extent of tuberculosis in the locality and for other purposes. In these tests about 17 per cent of the dairy cattle reacted.

The percentage of tuberculosis in various states, shown by tests conducted by the officials in those states with bureau tuberculin, indicates that from 2.79 to 19.69 per cent of the cows react, and it is estimated that in the country at large at least 10 per cent of the cows in dairy herds are tuberculous.

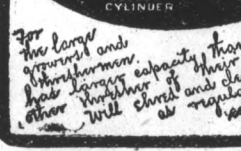
The recent agitation against the milk of tuberculous cows as human food has had the effect of causing many herds to be examined, with astonishing results, not only to the owners but to the officials themselves. Can it be wondered at that so many infants and children die of intestinal tuberculosis when so many of the cows from which milk is obtained are tuberculous?

Without considering the matter as a public health question but looking at it entirely from an economic standpoint and as a business proposition, live stock raisers cannot afford to have tuberculosis in their herds. As an illustration, Argentina requires that all cattle imported into that country shall be subjected to the tuberculin test upon arrival, and as a consequence exporters from the United States have had the test made on cattle intended for shipment. The results of these tests showed that in some of the purebred herds nearly 50 per cent of the animals were diseased and in consequence sales were lost.

When the practice becomes general for all buyers of breeding cattle to have animals tested before placing them in their herds the breeder of strictly healthy cattle will be much sought after. Already some breeders of pure-bred cattle have established, or are arranging to establish, such herds. As soon as the breeders fully understand the fact that it is unprofitable to go on breeding cattle while tuberculosis exists in their herds, much of the objection raised against the sale of live stock subject to inspection will disappear, for it would be worth the price of several condemned animals for the owner of a valuable herd to know the fact as early as possible if the disease exists in his herd, as the longer he delays in taking steps to prevent its spread the greater will be his loss eventually. Figures for the last year secured from abattoirs where federal inspection is maintained show that over 10 billion pounds of meat was inspected, 46 million pounds of which was condemned, nearly three-fourths being for tuberculosis.

The recent effort of the large packing interests to buy all dairy cows subject to post-mortem inspection shows how serious the plague is becoming. Sooner or later the man who raises tuberculous animals must suffer the loss, unless the loss is paid for out of public funds; and when the loss is placed upon the producer we may then know that the end of the disease is in sight.

It may at some time be necessary for the federal government to quarantine against interstate shipments of cows from certain states where the disease prevails to a considerable extent, and require a strict supervision over all animals removed from such states for interstate shipment, and only remove the quarantine from sections of the state when it has been demonstrated that the disease either has been eradicated or is under strict local quarantine.



## DO YOUR OWN THRESHING

ONE HALF of your profits from beans and peas are lost if you do not thresh them from the vines in such a way that you save the seed in a whole, clean marketable condition. The Owens Threshers are guaranteed to do this. They absolutely will not split the seed, and yet take every pod from the vines. They will also shred the vines and take all sand, dirt and foul stuff out of them. Handled by an Owens Thresher your crop will yield you better both in quantity and in price, both for your seed and hay. Don't continue the old wasteful way of handling your crop. Try the—

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## A WARNING.

Just at this time of the year, while the rush of spring work is on many of us find that last winter we made a miscalculation as to the number of horses needed for the season's work, or, as mishaps are bound to occur, find that we need another horse, and what is more, find that we need one badly. As time, especially springtime, is money, many of us are apt to think that rather than waste several days looking around the country for a rather scarce article, it is cheaper to hie off to some large city and buy a horse off the open market. Oftentimes, it is well, but other times it isn't. That's where the rub strikes us.

It is a well known fact, tho we seldom think of it when buying an animal, that hundreds of farmers make it a business to fatten and otherwise prepare horses for market, and that when they get thru with the animal, it usually takes several weeks to get the horse down to working condition. Also, another well-known fact is that there are hundreds of western horses on the market, and that, as a rule it takes time to get them where one can do a solid day's work. Often it takes a whole season to get them thoroly acclimated, and that on account of distemper and kindred ailments one encounters an element of loss if not of danger. Then, hardly any other business is so filled with sharpers and schemers as the horse business, so it is that unless one is unusually careful he is apt to get a doped animal.

Only this spring, a renter in our neighborhood bot a team in Toledo. A few days after buying them, he took the pair back and gave the jockey fifty dollars for the privilege of returning them. An investigation of matters found that he was the sixth farmer so taken in, within the course of as many weeks. Yet, we say that farmers aren't easy marks. We ourselves have lost out very much at times, both on overfed animals and on western horses. True, we have had many which were in every respect worth the money, but as I have said, there is an element of chance which we, in the present rush, can hardly afford to run, and for that reason, I think we can afford to spend a few days scouring the country for horses upon which we can rely.

CLYDE A. WAUGH.

## SUPPLEMENTARY PASTURE CROPS.

Because we are having a surplus of rain at the present time, a great many farmers will be likely to forget that more often than otherwise we get a summer drouth. With the prospects good for an abundance of pasture during the early summer these same farmers are likely to forget their experience of previous years, when the pastures have dried up under the scorching heat of the mid-summer sun, and it has been necessary to feed the meadows as well as the pastures all too closely, to get the stock thru the dry time. That such a course is not profitable all will admit. That this is the season of the year when provision should be made against such a time of need all should remember. Some rape sown for the sheep and hogs, and a small area planted to soiling crops for the cattle will make it certain that the experience above referred to need not be repeated this season. A little forethought of this kind will pay in the greater thrift of the stock during summer, and the better condition and more profitable yield of marketable product in the fall and succeeding winter.



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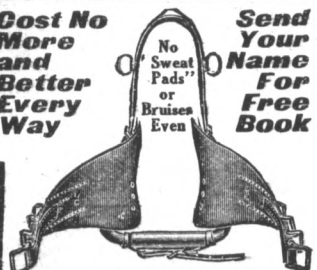
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## LIVE STOCK NOTES.

Reports from the northern ranges state that new grass is very backward in showing up, and none is available except in a limited area around Sheridan, Wyoming. Range cattle came thru the winter in extremely thin condition, with scarcely any flesh on their bones, and hence a good many weeks will be required for putting them in good butchering condition. It is not expected that any large numbers will be ready to market before September, and until this movement of range stock sets in freely there will be a better showing for corn-fed cattle. Texas cattle are going in extremely thin flesh to northern pastures as there has been a long drought in that state.

Complaints are heard in the markets of the middle west that every year sees fewer good veal calves and more of light, immature calves which are so hard to sell for the good reason that they make an inferior grade of veal. This is the state of things in the Chicago market, where the packers want calves that will weigh from 120 to 140 pounds, with very few of that kind offered. In former years the dairymen paid closer attention to finishing their calves, but since then the milk has advanced so much in price that the principal aim is to sell the calves quickly so as to save the milk. It seems a great pity to send in the calves at so early an age, and it would probably pay to make the calves a little fatter before parting with them. It has become customary to send in unduly large numbers of calves on Tuesday, which long has been known as "calf day," and it would be better to distribute the receipts over the week more evenly, for the present system favors buyers unduly.

Before long the last of the Colorado woolled lambs will have been marketed, and there will be something approximating a mutton famine until the crop of spring lambs is ready for marketing. As is generally known, there is a great shortage of sheep and lambs this season, unusually small numbers having been sent last autumn to feeding districts in Colorado, Michigan, Iowa and other states where mutton is largely produced. The sheepmen who have stuck to the business and carried it on intelligently have made handsome profits, recent prices having been unusually high. Prime unshorn lambs have sold quite recently in the Chicago market at \$8.75 per 100 lbs., the highest price seen in years. Mutton is extremely dear eating these times.

The dearth of corn, muddy feed lots and continued unsatisfactory conditions in the beef trade combine to make things uncomfortable for the average cattle feeder. The cost of producing beef is greater than usual, while the enforced great reduction in the consumption of beef everywhere owing to its high price and hard times for thousands of families tends to lower the ruling prices of beef cattle. In ordinary times the present cattle supply would be regarded as small, but it is actually large for the domestic and foreign demand, and the popular demand continues to center on cattle of a middling class, rather than on the best grade. The exporters are buying far less cattle than in former normal years, and they are letting the choice heaves severely alone and are taking the medium to good lots mainly, steers selling in the Chicago market at \$6.40 per 100 lbs., being chiefly wanted for the foreign markets. Prices for cattle are still narrowing, and while the cheaper steers have been selling in the Chicago market at about the same prices as were paid a month ago, the top price is lower than at that period. Kansas continues to furnish considerable numbers of heavy good to choice heaves, and there is a fair movement of that class from Nebraska, while South Dakota and western Iowa stockmen are marketing numerous heavy cattle.

The western packers continue to meet with great difficulty in their determined efforts to place the hog market on a lower basis, for there is evidently a short supply thruout the corn belt, and week after week the numerous Chicago packing firms are forced to divide up the reduced receipts with the aggressive eastern shippers, these taking the cream of the offerings. The shippers call for the choicest droves of hogs averaging anywhere from 220 to 260 lbs. usually, and they pay the highest prices. They also frequently take some of the hogs of lighter weights, as do the Chicago packers now and then. In fact, there is usually a good all around demand, and hardly anything in the hog line comes really amiss, altho the smallest pigs necessarily have to be disposed of at very low comparative prices. It is a case of the supply falling short of the demand, and not until the pigs born last autumn are ready to be marketed is there expected to be any radical break in prices. The only thing that could bring about a materially lower market would be a serious falling off in the eastern shipping demand, and this is hardly to be expected, altho further sharp advances would be likely to be followed by a slower demand. Hogs are wanted more for the big fresh meat trade than for any other purpose, for fresh pork is still the cheapest article in the meat line.

The state department at Washington has notified Henry L. Wilson, the American minister to Belgium, that the Belgian government has removed the restrictions against the importation of cattle from all parts of the United States. The restrictions were imposed last December as a result of the outbreaks of the foot-and-mouth disease in several states.

The abundant moisture from the snow and heavy rains which fell during the last days of April and the first days of May, followed by warm, growing weather have done much toward making up for lost time in the growth of pastures. If not too heavily stocked at the start they will furnish abundant feed from now on, and relieve the farmer who is short of feed from no little anxiety.

## VETERINARY

CONDUCTED BY DR. W. C. FAIR,  
CLEVELAND OHIO.

Advice thru this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to some one else.

**Periodic Ophthalmia.**—I have a 5-year-old mare that was sick a year ago last winter. The Vet. who looked after her thought she had pink eye, since then she has had more or less eye trouble, but appears to be much better at one time than another. She had a colt this spring and is worse since. She is worse when working. What ails her? L. R. A., Lake Odessa, Mich.—Your mare suffers from periodic ophthalmia and will lose her sight some time. Give 1 dr. sulfur, 1 dr. powdered rosin, 1/2 dr. iodide potassium at a dose in feed once a day for twenty days.

**Infected Udder.**—I let my cow go dry March 1st; she was due on April 5th; on April 3rd one quarter of her bag swelled. I milked what seemed to be clear blood from her. The next day the whole bag was inflamed. She had a temperature of 105°, blood coming from all four quarters, bowels not acting, refused to eat and drink, took spasms and died April 15th. We opened her and found food packed tightly in her third stomach, her gall was five times its normal size. E. S., Burton, Mich.—Your cow first bruised her udder, it soon became infected; besides, she no doubt suffered from impaction and between the two it caused her death.

**Is Congested Udder Contagious?**—Will a cow with one or two quarters completely blocked or congested or inflamed be all right when she freshens again? C. R. H., Jackson, Mich.—A cow may have congestion of the udder, the result of injury and not be at all contagious; however, a great many congested udders are the result of infection and these cases should be regarded as contagious. Whenever a cow gets into a condition so that it is impossible to draw milk from it and she is allowed to go dry it is always very doubtful whether it will ever restore to a normal condition or not. In the case of deep milkers and valuable cows it is often worth while to take a chance, but in a majority of cases it proves a disappointment and the quarter remains blind.

**Cow-Pox.**—I bot a cow last fall said to be seven years old. She came fresh one week ago, now her teats and udder are quite sore. At first these parts looked like warts; now they have peeled off and she seems to suffer pain when milked. Any information you can give will be greatly appreciated. J. F. M., Clifford, Mich.—Your cow has perhaps a light attack of cow-pox, nothing that is at all dangerous and readily yields to treatment. If her bowels are constive give 1 lb. sulfate of soda (Epsom salts) one dose only. Also give 1/2 oz. powdered nitrate of potash (saltpeter) twice a day for three days and apply 1 part oxide of zinc, 4 parts vasoline to sores twice a day.

**How to Increase Mare's Milk Flow.**—Indigestion.—I wish you would tell me what to feed my 4-year-old mare to make her give more milk. We are about to commence working her; am feeding plenty of oats and hay. I also have another pair of horses that are thin; had their teeth filed last fall and our local Vet. gave me some powders to mix in their feed; however, they have not picked up. A. H., Springport, Mich.—Your mare should be fed mixed hay instead of clear timothy, plenty of bran with her oats and a few vegetables once or twice a day. On account of her colt having to be nourished you should increase her grain ration and as soon as possible let her have some grass. Give your other two horses each a tablespoonful of the following compound powder at a dose in feed two or three times a day for thirty days. Powdered sulfate iron, gentian, ginger, fenugreek, rosin and charcoal equal parts by weight and mix them thoroly.

**Brain Trouble.**—I have a black gelding 14 years old; he was a good horse up to ten years old; since then he has been a little stupid, the result of a sick spell; He has since had two or three attacks; he has often moved in a circle, is feverish and has cold sweats. He has not had any attacks lately, but it is almost impossible to make him back. Our local Vet. thought he might have a tumor on the brain, another Vet. thought not; filed his teeth and gave a tonic saying when summer came he would not be able to work, but he was mistaken for the horse worked and improved. B. S., Bath, Mich.—These are cases that no one can positively tell just what is causing his illness; however, I imagine that it is due to imperfect circulation in the brain. Give 1/2 dr. iodide potassium and 1/2 oz. hypodermic soda at a dose in feed twice a day. His bowels should be kept open.

**Chronic Grease Heel—Stocking.**—I have a 2-year-old colt that was taken lame about the middle of February with what I thought an attack of grease heel. I had to go away about a week and when I returned his leg was sore on each side and discharging an offensive fluid; besides, the leg was quite itchy and badly swollen. I applied poultices and a lotion from our home veterinary. His leg is now nearly healed, but swollen, which makes him travel stiff. What do you recommend? W. J. P., Benzonia, Mich.—Give your colt 1 dr. iodide potassium and a teaspoonful powdered rosin at a dose in feed night and morning for ten

(Continued on page 551)

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DETROIT, MAY 15, 1909.

## CURRENT COMMENT.

The plan adopted by the State Board of Agriculture in the High School. of Agriculture for the introduction of agricultural instruction into the high schools of the state has been outlined in these columns and is no doubt familiar to a large percentage of Michigan Farmer readers. In a bulletin just issued by the department of agricultural education of M. A. C., Prof. W. H. French gives some interesting information touching the progress of the work which his department is undertaking to introduce into the high schools of the state as fast as a demand or desire for such instruction becomes apparent. Taking the high school at North Adams, the first to establish a course in agriculture under the supervision of this department, as a basis, this bulletin shows how inexpensive this work really is, and how it helps the students in other ways aside from the value of the technical knowledge of agriculture which they gain thru the application of the knowledge gained in their other studies to the agricultural problems. From the statistics given in this bulletin we deduce the fact that forty pupils are taking this agricultural course, at an average annual per capita cost to the school of less than \$10. A special teacher is employed at a regular salary of \$800 a year, but this is not all added expense for the reason that this teacher does other work aside from the teaching of agriculture, taking the place of a teacher who received \$500 per year. Aside from this extra cost of \$300 per year, there is an item of \$60 covering the cost of tools and apparatus used in the instruction. In addition to this the school library is equipped with a number of good works treating on agricultural subjects, the Michigan Farmer, and other journals treating on special phases of agriculture. In addition to the students who are taking agriculture as a part of the high school course, there are four boys who are pursuing it as a special study who had previously graduated from the school.

Another feature in connection with this work which is of peculiar significance is the fact that the establishing of this course has created a demand for a short course in agriculture by the farmers of the vicinity. In response to this demand the superintendent of the school and the special teacher of agriculture arranged to give one evening each week for ten

weeks to this work and all who desired to do so were privileged to attend. The average attendance for the entire period was twenty-five, an attendance which demonstrated the general interest taken in the proposition by the farmers of the community. The study of live stock was made a specialty in this short course work, and the work was so satisfactory to all concerned that it is planned to continue the short course idea next year.

There would seem to be no room for argument touching the value and benefit of this line of work in the high schools of the state, and those in charge of the high schools of the state could do no greater service to the communities in which they live than by giving each one of the twelve thousand boys and girls from rural communities who are attending these schools an opportunity to receive like instruction in them.

Among those who discussed different phases of the country life problem in an April number of The Outlook, was John E. Bell, a "real thing farmer," of Lapeer Co., Mich., who treats the problem from his standpoint as a farmer.

Mr. Bell starts out with the pertinent assertion that the farmer should be taught his business in his own school, instead of being influenced away from it toward other callings. Admitting that farmers do not get the returns they reasonably should from the sale of their products he has reached the conclusion to which most men who have thought deeply on this subject have arrived, in that he believes the farmers are "too scattered, too far from centers of distribution and consumption and too much burdened with production to take care of the distribution end of the business." But while he maintains that the farmers' situation and environments are not adapted to trust methods, he asserts that the influences which have in the past tended to cheapen agriculture as a calling, have at the same time provided the remedy in the consequent shortage of farm products which means higher prices for those products, an object lesson which may teach the world a wholesome lesson. Another means to the same end is the lack of a proper appreciation of the soil, brot about by the general low esteem in which agriculture is held and the lack of a degree of scientific knowledge on the part of the farmers themselves. The author of the article referred to has aptly said, "The soil is God's greatest material gift to man," and declares that "the individual who deliberately fails to return to the soil its fair share of the product abuses nature, cheats and degrades himself, robs his children, defrauds the future generations, and is not an intelligent, patriotic citizen." The Department of Agriculture is commended for its good work and criticized for its shortcomings, while the statement is made that probably not one-half of one per cent of the farmers of the state are in touch with the Agricultural College and experiment station. But the suggestion of a remedy for this condition is the point which prompted this comment. Mr. Bell suggests that it would be well for these institutions to secure the co-operation and services of say one capable, energetic farmer in each township to demonstrate what can be accomplished by thorough scientific methods of farming. This suggestion is in line with the extension work which the Michigan station has planned, and which will be inaugurated this season, by conducting experiments in various localities with local co-operation and assistance. The Michigan Farmer has long held that object lessons in good farming are what is most needed to improve conditions in the open country. This was the point emphasized as most needed in our answer to the questions propounded by the Country Life Commission and we are glad to see this same point emphasized by a Michigan farmer writer in a magazine that is widely read by those who assume the necessity of doing the farmer's thinking for him.

## HAPPENINGS OF THE WEEK.

### Foreign.

Steps are being taken to investigate the case of captain and crew of a whaling vessel who were cast into a Venezuelan prison by the regime of President Castro. The vessel arrived at a port of that country in distress five years ago and was seized by the authorities, according to a report of one of the men who escaped from the prison.

An English army man has invented an arrangement whereby guns can be fired in an engagement from a central firing control. The guns will be sighted in the usual way.

At present, the new government of Turkey is preparing for the ceremonies connected with the coronation of the new

sultan. The government is quieting the troubles in Asiatic Turkey and promises now that the parties guilty of the disturbances and the massacring will be punished. In a number of different places the Armenians are going back to their homes.

The crews of merchant vessels at Marseilles, France, have gone on strike, making the demand that they want one day in seven for rest.

The strike in France is abated for a time at least, as the strikers voted Sunday to obey the orders of the federal committee.

A company in which the Belgium government is the chief stockholder has brot suit against two American missionaries for libel, growing out of statements made by the missionaries about the conduct of the company in carrying on its business in that land.

The Shah of Persia has agreed to the recognition of the constitution and to political amnesty to those who have aided in the recent events. A new cabinet has been formed.

### National.

William C. Maybury, former congressman, and for a number of years mayor of Detroit, died at his home in that city last Friday morning. His body lay in state in the city hall Sunday afternoon when 25,000 persons are said to have viewed the remains.

Nine persons were drowned from a row boat while out for a pleasure trip on the river at Wilkesbarre, Pa.

Prof. Clayton, who recently resigned his work as meteorologist to take up the study of aeronautics, is planning to take a balloon trip across the Atlantic ocean. The chemical laboratory of the United States government was badly damaged by fire Sunday.

The United States district court is investigating frauds against the government by the sugar trust—the charge being that weighers have been giving wrong weights to the officials, which saved to the trust large sums annually in lessening duties upon sugar.

The superintendent of insurance of New York can now levy upon the property of insurance companies to secure the policy holders when necessary. New laws also provide that all endowment and life policies issued or delivered in the state must be approved by the superintendent.

The Michigan house of representatives has just passed a bill making it necessary for any municipality, or slaughter plant desiring to run sewage into any stream or lake, to first secure a certificate from the state board of health. The purpose of the bill is to keep the streams and bodies of water of the state as clean as possible.

The United States court found six bucketshop men of Cincinnati guilty of swindling customers by means of getting inside reports.

The United States government has directed that several of the islands of the Culebra group be set apart for naval and lighthouse purposes and for the department of agriculture where a preserve will be kept and native birds bred.

The Massachusetts legislature is about to submit a bill to the state executive for compelling telegraph companies to issue on the telegrams the time that the message was received, as well as the time of filing.

A deal has practically been closed whereby telephone property worth \$20,000,000 comes under the control of one concern, at Pittsburg.

It is believed that the steamer Shores, a great lakes vessel, went down off Whitefish Point last week. The boat carried a crew of 21 men, all of whom are supposed to have been lost with the vessel.

Ex-President Roosevelt now claims the record for hunting in the East Protectorate—having killed five lions and one lioness in a single week.

It is being urged upon Congress by farming and other industrial interests of the central states to provide funds to be used with funds provided by states interested, for the building of a deep water canal from the lakes to the Gulf. Among other arguments it is being heralded that in case of war with England the United States could get big battleships to Chicago thru the new watercourse.

The second national peace congress closed in Chicago May 5. The Swedish consul in Chicago made a gift to the Northwestern University of \$25,000, the income from which is to be devoted to a study of the accomplishment of universal peace.

James H. Boyle and his wife were found guilty of kidnapping little Willie Whittle, at Mercer, Pa., and he has been sentenced to the state penitentiary for life and she for 25 years.

A bill has passed both the senate and house of representatives of Missouri for submitting to the electors the question of state wide prohibition at the next general election.

## MICHIGAN CROP REPORT.

**April Weather.**—The precipitation was generally above normal, especially in the southern and central counties. Heavy rain occurred on the 14th and rain, snow and thunderstorms on the 28th and 29th. The temperature averaged from 1 to 4 degrees below normal. High winds occurred on the 7th and the last three days.

**Wheat.**—The present wheat prospect shows a slight improvement since the issuance of the April report, the average being 78 in the state and southern counties, 71 in the central counties and 80 in the northern counties.

The average condition on April 1st in the state and southern counties was 76, in the central counties 69 and in the northern counties 83.

The total number of bushels of wheat marketed by farmers in April at 108 mills is 84,673 and at 76 elevators and to grain dealers 48,322 or a total of 132,995 bushels. Of this amount 94,245 bushels were marketed in the southern four tiers of counties, 31,562 in the cen-

tral counties and 7,188 in the northern counties. The estimated total number of bushels of wheat marketed and used by growers in the nine months, August-April, is 9,000,000. The amount of wheat yet remaining in possession of growers is estimated at 1,500,000 bushels.

The per cent of wheat sown that will be plowed up because winter killed, in the southern and northern counties is 4, in the central counties 13 and in the state 6. The damage by Hessian fly in per cent in the state and southern counties is 2 and in the central and northern counties 1.

Eighty-eight mills, elevators and grain dealers report no wheat marketed in April.

**Rye.**—The average condition of rye in the southern counties is 86, in the central counties 81, in the northern counties 88 and in the state 85.

**Clover.**—The condition of meadows and pastures in the state and northern counties is 76, in the southern counties 75 and in the central counties 80. The acreage of clover sown compared with an average for the past five years in the state and southern counties is 98, in the central counties 97 and in the northern counties 100. The acreage of clover that will be plowed up because winter killed or otherwise destroyed in the southern counties is 19, in the central counties 10, in the northern counties 12 and in the state 16.

**Oats.**—The acreage sown up to date, compared with an average for the past five years, in the state, southern and northern counties is 97, and in the central counties 94.

**Spring Pigs and Lambs.**—The per cent of spring pigs saved, as compared with 1908, in the state and southern counties is 89, in the central counties 88 and in the northern counties 87. The per cent of lambs saved, as compared with 1908, in the southern counties is 94, in the central counties 91, in the northern counties 90, and in the state 92.

**Farm Wages.**—The average monthly wages with board, in the southern counties is \$24.43, in the central counties \$22.24, in the northern counties \$23.32 and in the state \$23.31. The average wages by the day without board, in the southern counties is \$1.43, in the central counties \$1.38, in the northern counties \$1.40 and in the state \$1.42. The average wages in the state last year, by the month with board, was \$22.89 and the average wages by the day without board was \$1.40.

**Fruit.**—Fruit correspondents thruout the state quite generally report the prospect for the fruit crop as very favorable at present. The spraying of fruit trees is on the increase. The following table will show the prospect at the present time for a crop of the various kinds of fruit in the state and the different sections:

	State.	Sou.	Cen.	Nor.
	Cos.	Cos.	Cos.	Cos.
Apples .....	84	83	82	91
Pears .....	79	79	78	83
Peaches .....	74	72	76	83
Plums .....	79	79	74	85
Cherries .....	85	84	81	95
Small fruit .....	82	81	81	87

## NATIONAL CROP REPORT.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of correspondents and agents of the Bureau, as follows:

On May 1 the area of winter wheat to be harvested was about 27,871,000 acres, or 2,478,000 acres (8.1 per cent) less than the area harvested in 1908, and 2,163,000 acres (7.2 per cent) less than the area sown last fall (30,034,000 acres, which includes 150,000 acres of winter wheat sown in Montana, not included in the December estimate).

The average condition of winter wheat on May 1 was 83.5 compared with 82.2 on April 1, 89.0 on May 1, 1908, and 86.0, the average for the past ten years on May 1.

The average condition of rye on May 1 was 88.1, compared with 87.2 on April 1, 93.5 on May 1, 1908, and a ten-year average for the past ten years on May 1.

The average condition of meadow (hay) lands on May 1 was 84.5, compared with 93.5 on May 1, 1908, and a ten-year average on May 1 of 89.5.

The average condition of pastures on May 1 was 80.1, compared with 92.6 on May 1, 1908, and a ten-year average on May 1 of 88.0.

64.1 per cent of spring plowing was completed up to May 1, compared with 66.6 per cent on May 1, 1908, and a ten-year average on May 1 of 65.4 per cent.

51.9 per cent of spring planting was completed up to May 1, compared with 54.7 per cent and 47.0 per cent on May 1, 1908 and 1907, respectively.

## CROP AND MARKET NOTES.

**Washtenaw Co., May 8, 1909.**—Conditions in Washtenaw county at this writing are not very favorable, especially for those farmers situated on the clay lands of the county. The cold storms of snow and rain have put the land in such condition that it is impossible in many instances to even get on it. At this date many fields of oats unsown, manure not drawn on corn land and a general behind-hand condition, but fortunately farming is a business in which even the most unfavorable conditions sometimes quickly and favorably change. Grass is very slow in starting and most stock is yet on winter rations. Hog and cattle prices as good as they have been for the past several weeks. Best hogs, \$6.75; cattle, \$5; butter, 25c per lb.; eggs, 18c per dozen.

**Emmet Co., April 27.**—Weather very unfavorable for farm operations. Plenty of rain for the month, each shower ending in a snow storm or freeze. During the past week a few have managed to get a little plowing done on fields favorably situated. A snow storm is in progress this morning. Peach buds have just started to swell and grass is starting up, but judging from the indications, it will be late before pastures are ready for stock.



# Magazine Section

LITERATURE  
POETRY  
HISTORY and  
INFORMATION

**MICHIGAN FARMER**  
AND **LIVE STOCK**  
JOURNAL  
PUBLISHED WEEKLY  
ESTABLISHED 1843

The FARM BOY  
and GIRL  
SCIENTIFIC and  
MECHANICAL

This Magazine Section forms a part of our paper twice a month. Every article is written especially for it, and does not appear elsewhere

**D**URING May and June the swampiest swamps and the small ponds show many odd flowers that tempt one to risk wet feet for the sake of a closer acquaintance with them.

**Water Arum—Wild Calla.—**(*Calla palustris*).

Of them all, the wild calla, which claims instant attention because of its resemblance to the larger flower so common in

## SOME OF OUR WILD FLOWERS—3

BY EVA RYMAN-GAILLARD.

Taw-kee and make it useful by drying the seeds and cooking them as we do peas, and by serving the roots after roasting, but they know it as a deadly poison and shun it in its raw form. The danger is from eating and not from handling, however, and no one need fear to handle them if the fancy for an oddity should prompt taking some of the roots home for the aquatic garden.

**Blue Flag—Fleur-de-Lis.**—(*Iris versicolor*).

Many sorts of "flags" may be found in swampy places at this season but none are more beautiful than the one named above, the crested petals of which are variegated with white, yellow and green, while the upright, sword-like leaves, from one to three feet tall, mark the plant unmistakably by the way in which they fold together from the base to nearly half their height.

There are those who will insist that *Fleur-de-lis* means flower-of-the-lily, while others claim that "lis" is a corruption of Lou's, and that the correct name is Flower-of-Louis. Be that as it may, it is certain that, in 1137, Louis VII. adopted the flower for use on his seal and made it the emblem of the royal family of France. Looking at the flower and noticing the crests that crown the petals, one can but wonder if they had an influence in determining his selection of a flower.

Histories dating much farther back than the reign of Louis VII., and concerning many countries, mention the fleur-de-lis in many ways. If one prefers fancy to facts, a picture of the goddess Juno choosing Iris, the goddess of the rainbow, as her favorite companion will help us find the rainbow hues in the flower.

Among less showy "flags" we find the little blue-eyed-grass that stands up so bravely, holding its two eyes wide open as if on the look-out from the tops of the narrow rush-like leaves.

Modest little plant, as it is, it is a true

iris, tho classed as *Sisyrinchium Bermudiana*. Isn't that an imposing name for a very unimposing little plant! This long name comes from *sys*, a pig, and *rychnos*, a snout, referring to the fondness hogs have for the roots.

**Pink Azalea—Pinxter Flower.**—(*Azalea nudiflora*). (*Rhododendron nudiflorum*).

Botanists jangle, among themselves, as to which of the above names is correct, and they are welcome to fight it out to their satisfaction while the rest of us admire and enjoy the beauty of the flowers—regardless of names.

The name of this flower varies with the locality in which it is found, but the name Pinxter-flower seems to be as well authenticated as any, for in an old book of "Travels," published in England in

1771, it is spoken of as the Pinxter-bloom, or Whitsunday-flower.

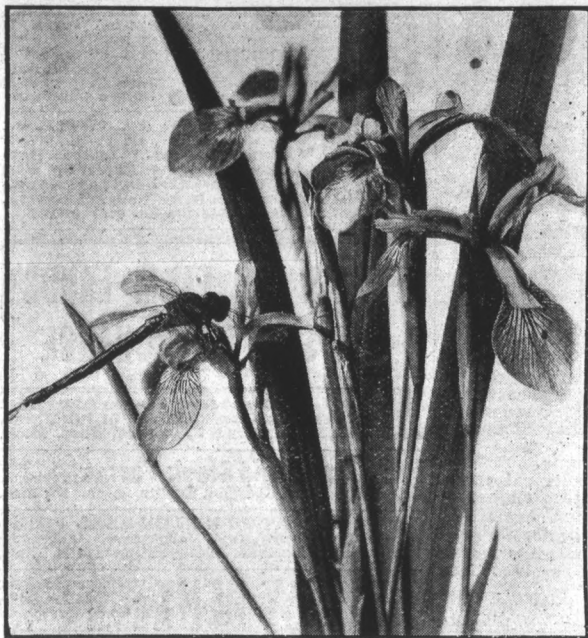
The plant is a shrub growing from two to six feet tall and when loaded (literally speaking) with clusters of pink flowers is a sight that will be sufficient reward for a long tramp. The flowers are funnel-shaped and the five lobes into which the tube divides turn backward, leaving the stamens and the pistil (having a black stigma) protruding far beyond its mouth and giving the flower a wonderfully airy look.

The bush may, or it may not, be in full leaf when found in bloom, for it is characteristic of the azalea that its leaves and flowers develop at the same time, and it not infrequently happens that the flowers reach full development first.

Where found at all there is no hunting for a single bush, for there will be hundreds of them, as a rule, tempting one on and on and fairly daring the attempt to pick enough to be missed from the mass that makes the woods seem aglow. Another thing that makes the flower dearly loved is its delightfully spicy fragrance—so penetrating that it is recognized at a distance, yet never cloying when near.

**Forget-me-not.**—(*Myosotis*).

Beside slow streams and in low, moist lands the forget-me-nots do their share toward making the world bright, and as



Flowers of Blue Wild-Flag, or Fleur-de-lis.

our winter window garden, is one of the most attractive.

Botanical distinctions have caused the little wildling to be disowned by the other family but the resemblance of both flower and foliage is sufficiently strong to justify the use of a common name for both flowers.

In this little flower the spathe is so widely opened, and carried so jauntily that it reminds one, forcibly, of a tiny sail on a fairy boat, floating along over the water, but the plants are sturdy things in spite of this appearance and are fine for cultivating in home-made swamps or ponds.

Get a good hold on a plant and the root-stock will be drawn from the mud in long sections, with plants all along its upper side. Even if not wanted for home cultivation an inspection of the root will show why there seems to be so many, many of them. The roots of the plant yield, under certain treatment, an edible starch, but woe to the one who bites the raw root or the leaves of this or any other arum, as the stinging, blistering sensation will last for many hours.

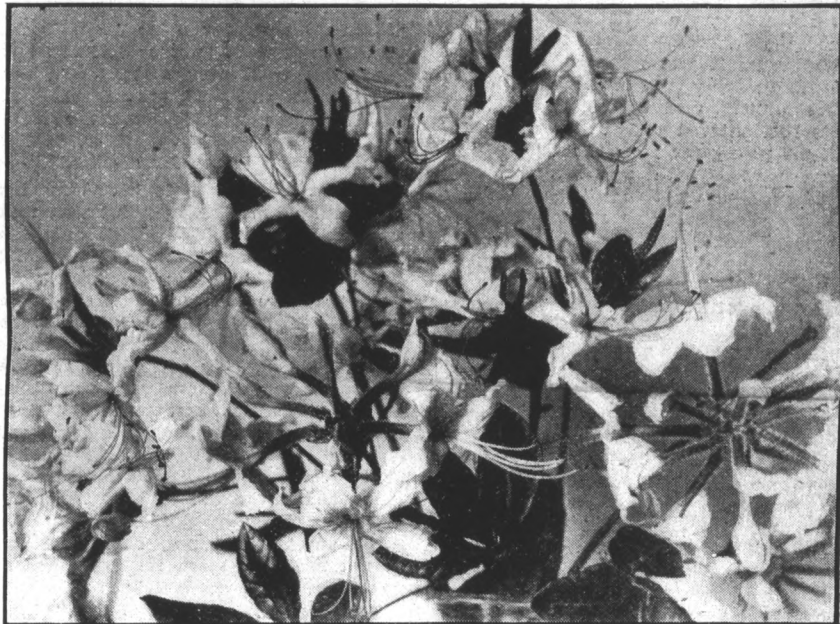
Dreadfully burning as the plant is in its raw state, Linnaeus found the Laplanders making the starch procured from it into some sort of bread that was, to them, a highly relished food. This little bit of history dates back nearly two centuries and so we know that the plant is of a very old family.

**Golden Club.**—(*Orontium aquaticum*).

This is another plant that grows in water and is interesting for its oddity, rather than its beauty—of which it has none.

Among plants it would be hard to find one with a more appropriate name, for the bright golden spadix which carries the true flowers is club-shaped and flaunts itself boldly above the water—at the end of a stem as long as the water is deep—but carries no shielding spathe, as do some other flowers we have already noticed.

The Indians call this plant



Luxuriant Bloom of the Beautiful, Fragrant Pink Azalea or Pinxter Flower.

1771, it is spoken of as the Pinxter-bloom, or Whitsunday-flower.

The plant is a shrub growing from two to six feet tall and when loaded (literally speaking) with clusters of pink flowers is a sight that will be sufficient reward for a long tramp. The flowers are funnel-shaped and the five lobes into which the tube divides turn backward, leaving the stamens and the pistil (having a black

stigma) protruding far beyond its mouth and giving the flower a wonderfully airy look. we note their modest beauty we can not wonder at the fanciful old legend which claims that when God called all the flowers he had created into the Garden of Eden, that he might give them names and colors, this little one was so afraid of being overlooked that it, timidly said, "Dear Lord, forget me not."

Then, seeing how frightened the tiny flower was the Creator gave it heaven's own blue for its color and named it Forget-me-not.

That legend accounts for its color and name, but the Persians account for the fact that it is found in all lands, by another: An angel sent to earth on a mission saw, while here, a maiden sitting beside a brook, weaving forget-me-nots into her hair, and fell in love with her. Like other lovers, he forgot his mission and loitered too long. Then, when he appeared at the gate of heaven he was told that he could never again enter until the maiden scattered forget-me-nots over all the earth.

Returning to earth, he helped the maiden scatter the flowers to its farthest corners, after which he clasped her in his arms and took her into heaven with him.

Coming down to plain facts we find the name *myosotis* is derived from *mys*, a mouse, and *otos*, an ear, in reference to the shape of the leaves.

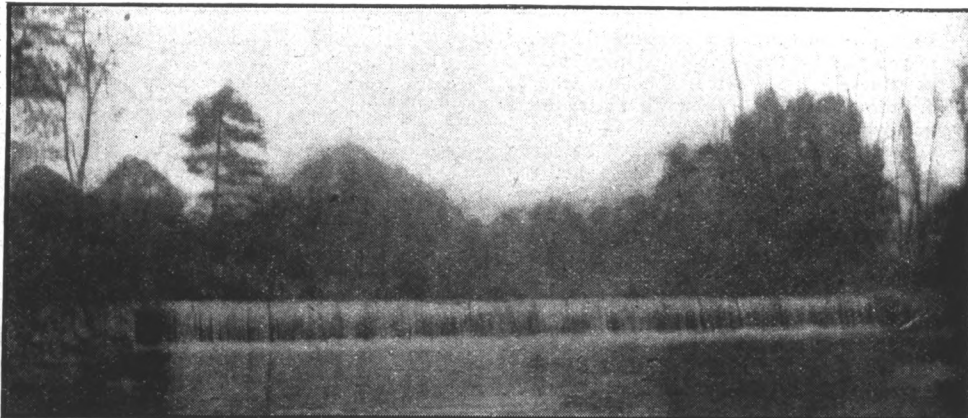
Scattered over all countries, as they are, the species vary slightly in both plant and flower, but the one we will be

(Continued on page 545).

## IN TIME OF MAY—BY ALICE J. CLEATOR.

It is the time of May! No longer sad,  
Earth casts aside its gloom,  
And field and wayside once again are clad  
In tender leaf and bloom.

The soul of beauty shines in every place  
Set from its bondage free.  
The humblest bush is glorified with grace  
Even as the mighty tree.



Streamlet and waterfall that lately spoke  
In underbreath of song  
Now carol forth their madrigals of joy  
The woods and hills among.

Sing, too, O heart, tho dark was sorrow's hour!  
Grief must not always stay.  
New courage take from smiling leaf and flower.  
It is the time of May!



## THEODORA.

BY IRMA B. MATTHEWS.

## Chapter VIII.—A Cablegram.

Dora was sitting at the piano running her fingers over the keys and evoking a sweet minor melody, but the action was mechanical. The music seemed to fit her mood just then, but her thoughts were not on it. They were straying afar. She was thinking of her past life; of all she had lost and what she had gained and she wondered vaguely which side the scales would balance on.

She thought of the past with less and less regret, the loss of her parents being all that she remembered now with sorrow, but blinding tears filled her eyes when she thought of the gentle mother and indulgent father.

Mr. Clark, the minister where she attended church, had been calling on her that afternoon and it was his fatherly talk that had sent her fancy straying into the past.

She smiled, too, as she remembered how she had first come to attend his church, and how horrified Lettie was when she told her that she selected the nearest church because it lessened their walk.

"Why not ride, then?" demanded Lettie. "No one ever thinks of walking to church."

"Because," Dora responded firmly. "Those men need their Sunday as much as we do."

"But," urged Lettie; "your walking will not make any difference."

"Perhaps not, but if everyone would do the same those men would get their Sundays. Anyhow, I was always taught to never make work for another on Sunday, ever since I was a little tot." So they chose the church nearest them and walked when it was pleasant, and when it was too stormy they remained at home.

"Dreaming?" said a voice behind, for Lettie had entered without Dora hearing her. "A penny for your thoughts."

Dora turned with a start. "I was thinking of many things," she smiled; "and my thoughts were so scattered that I doubt if I could collect them even for your tempting offer. I was thinking of the past and—" she raised her eyes to where the pictures of her parents hung side by side.

Lettie followed her glance. "Dora," she said suddenly, "who do you resemble? You do not look in the least like either of your parents."

"I know it, and it was a great cross to me when I was a child. I remember going home one night and asking mother why I did not look like anyone, and she smiled and told me that I looked much like one of the sweetest, truest women she ever knew and that sometime she would tell me about her. After her death I found a picture marked 'Dear Sister Margaret,' whom I seem to resemble, and both Don and I think that it was a sister that mother lost when she was young and could not bear to talk of."

A moment later the girls heard a whistle outside and Dora exclaimed: "Mercy! there is Don and I have not started my supper. You stay and help me, Lettie," and the two girls were anxiously setting the table and hurrying around when Don came in.

"I perceive," he laughed, "that I am not remembered when you girls get to gossiping. Tell me, just for curiosity's sake, what do you girls find to talk about so much, anyhow?"

"Not you," answered Lettie saucily, "for you said we had forgotten you. Really I am afraid you would fail to comprehend our valuable talk even if we could bring ourselves to tell you."

"If you will make the effort I will try and bring my mind down so as to assimilate it."

"Bring his mind down! Only hear him, Dora."

Dora smiled, for she was accustomed to their sparring. All thru the meal she noticed that Lettie seemed more like herself than she had for some time and she was glad. After the work was done they all sat out on the front porch and talked. Wayne came over to see that his sister got home safe, he explained, and they made a gay company. The dusk was just turning to dark when they spied Mr. Scott coming down the road.

"He is coming here, what can he want?" Lettie said as he turned in at the gate. As soon as he came near enough so they could see his face they knew that something had happened and instinctively each one arose.

"Lettie, daughter—" he faltered.

Lettie's face grew as white as the face of the dead as she answered: "Father!"

"I have had news for you, child," the father said in a voice that trembled in spite of his efforts to be calm.

"Albert?" she formed the word with frozen lips.

"Albert is dead."

With a sigh she sank unconscious, but not before Wayne reached and caught her in his arms. Dora, with tears of sympathy in her eyes, sprinkled water in her face and in a short time she struggled back.

Lettie seemed dazed, but when her father suggested her going home she clung to Dora. "No, father, let me stay with Dora tonight," she pleaded, and so they went and left her.

After Dora had taken her into her own little room and helped her get ready for bed, the lethargy seemed to pass and she burst into such a violent fit of weeping that Dora became frightened.

"Don't, Lettie, dear," she pleaded; "let the dear Father help you to bear this. You have much to be thankful for, a dear brother and your parents and—"

"O, Dora, you do not understand," she wailed; "I am the most miserable girl in the whole world."

"Oh, no," she answered, smoothing her hair soothingly as one might a child's.

"But I am, and that is why I would not go home? I felt as if I must tell someone, and I could not tell the folks at home because you know they never approved of Albert, and I must tell it or go mad."

"Tell what, dear?"

"O, Dora, that I feel as tho I had murdered Albert!"

"What in the world do you mean?" asked Dora, fearing that the girl's mind was affected.

"I have known for some time, Dora, that I did not want to marry Albert, but my promise was given and I could not break that now; then I prayed that God would in some way prevent the marriage, and now," with a shudder, "I feel as tho I was to blame for his death."

"You are in no wise to blame for his death," said Dora firmly. "Put that from you forever. With God, only, lie the issues of life and death and he would not put such a burden as that upon you. This would have happened just the same had you not grown tired of him. But why was this?"

"I don't know, only after he was here I began to compare him with your brother and—others, and some way he lost in the comparison and then I knew my heart had really never been in the affair and it seemed as tho I could not bear it; but Dora I never wished that he would die."

"I know you did not, dear, and can you not see that there must be murder in the heart to make a crime? You are no more responsible for his death than I am. Do not think of that any more."

A few days later a letter came saying that Albert had died of cholera. He had been helping to care for a comrade who had the disease and had thus contracted it. That was about all they were ever able to learn.

A few days after the news had come Dora was startled one day to receive a call from Howard Murray. He looked so pale and strange that she was astonished, wondering if he had been ill. She soon found what was troubling him, however, for he said abruptly: "Is it true, Miss Hampton, what they tell me about Lettie's trouble?"

"It is true," she answered, "that Albert is dead, if that is what you mean."

"I knew you would know. Believe me when I say, Miss Dora, that I would willingly exchange places with him that she might be happy."

A great light was beginning to dawn in Dora's mind and she answered: "That might not be the best thing for Lettie's happiness. Believe me, the One who is ordering Lettie's life knows better than you what is for her good."

"It may be so, I trust it is," he made reply; "but will you convey to her my sympathy and tell her I would do anything in my power to lessen her trouble for her?"

To his surprise Dora shook her head. Then looking at him she said: "I am going to ask you to trust me and believe me when I say that it would be better for you not to send her such a message at present. When the time comes that I think it might be given I will give it. Do you agree?"

"I can do no other way if you refuse to deliver my message, for I cannot trust myself to do it."

"Believe me, it is for the best," she answered earnestly. "I hope and believe the time will come when you will under-

stand why I refuse to give this message now."

He looked at her eagerly, pleadingly, but more she would not say, and he went away puzzled and yet not wholly as a person without hope.

Perhaps I should not have said that much, Dora mused, but I could not help it, and I do not want to see Lettie's whole life spoiled thru her mistaken notions of what she owes to Albert now that he is dead, and I rather guess that young man will do some thinking.

He did, but weeks and months passed before it bore fruit. Dora, watching her friend, was almost in despair, but he knew how to bide his time and, meanwhile, there were other things to occupy the time and thoughts of our fair heroine.

(Concluded next week).

## KINKS.

## Kink I.—Hidden Picture.



Find the following in this picture, all of which the boy and the fairy can see: One panther, 6 bears, 1 deer, Goddess of Liberty, a woman's face, and Theodore Roosevelt.

## Kink II.—Conundrums.

1. What is the greatest surgical operation? 2. What is the greatest engineering feat? 3. Why is Chicago ill?

## Kink III.—Storm Puzzle.

What two exhibitions of nature's forces during April 21-29 may be resolved into the words, darn, tool, thing and gin?

## Prizes for Straightening Kinks.

To the first 25 who send us correct answers to ALL of the above Kinks, we will give choice of a package of 50 post-cards representing a trip around the world, a copy of "Concrete Construction on the Farm," or a bread and cake knife. Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must reach us not later than June 11, as correct solutions will be published in issue of June 19. Address answers to Puzzle Dept., Michigan Farmer.

## Answers to April 17 Kinks.

## Kink I.—Planting Riddle.

The last week in April we put in our oats.

The first week in May we'll fit ground for corn.

During winter we harvested a good crop of votes.

At the polls that has made the town barkeepers forlorn.

In our garden we'll plant some early string beans,

And in straightest of rows the Marrow-fat pea;

Of early potatoes, a good kind, which means

By common opinion, the Early Bovee.

The Prolific Rose for medium potatoes; For late ones, the Carman's, both one

and three.

And smooth Ponderosa, the best of tomatoes;

Gold Queen for yellow; and Early Acme.

Of sweet corn, the Malakoff or Peep o'Day,

And Golden Bantam, the sweetest corn grown;

And turnips and beets, that all of us may

Have vegetables enough when summer has flown.

Green peppers, egg plant and squashes with crooks;

Parsnips and pumpkins, carrots and gourds.

Kale and kohlrabi, then White Spine for "cukes."

Muskmelons, watermelons, the last Rocky Fords.

Salsify, watercress, spinach and radishes; Limas and mangels, and then Brussels sprouts;

Okra and onions, cauliflower, cabbages. Around all a fence makes the biddies

"shut-outs."

Kink II. Ifs.—If a small boy should hit a man on the ear with a potato, the man should feel irritated. 2. If a retired typesetter should return to his old job, the change should be called reversion to type.

## Kink III.—Word Square.

V E R S T

E X I L E

R I S E N

S L E E T

T E N T S

No Prizes Awarded.

Falling to receive correct solutions to Kinks of April 17, no prizes are awarded.

## EUREKA Harness Oil

Ever compare the pulling power of a trace, dry, checked, brittle, with that of a trace, soft, pliable and full of "snap"? EUREKA HARNESS OIL will keep a whole harness soft, black, and in best possible condition for years. All that's necessary is an occasional application of the oil.

Ask your dealer for "Eureka" Oil. STANDARD OIL COMPANY (INCORPORATED)

## AGENTS — NINE IN ONE

\$75 monthly. Combination Rolling Film. Nine articles combined. Lightning Seller. Sample free. FORSHER MFG. CO., Box 387 Dayton, O.

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PATENTS ALEXANDER & DOWELL, Attorneys at Law, 918 E. St., Washington, (Est. 1857.) Procure Patents and Trade Marks; Render Expert Opinions on Patentability of Inventions; Validity and Infringement of Patents; Practice in all Federal Courts. Will send book of information on request.

## FARMS AND FARM LANDS FOR SALE OR EXCHANGE

WE SELL LAND and require no payment except interest and taxes until end of third year. FLINT LAND COMPANY, Limited, Flint, Mich.

Fruit, Grain and Stock Farms in Oceano Co. Write C. W. Morgan, Shelby, Mich., for lists.

IF YOU WANT TO BUY OR SELL PROPERTY, any kind, anywhere, write the Northwestern Business Agency, Minneapolis, Minn.

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when you can buy the Best Land in Michigan at from \$5 to \$10 an acre near Saginaw and Bay City. Write for map and particulars. Clear title and easy terms. STAFFELD BROS., (owners) 15 Merrill bldg., Saginaw, W. S., Mich.

FOR SALE — One of the best 80-acre farms in Southern Michigan. 4 miles from Charlotte, all improved; tile drained, good fences and good buildings and in a high state of cultivation, three-quarters mile to school, one-half mile to church. O. D. HITCHCOCK, Charlotte, Michigan.

THRIFTY FARMERS are invited to settle in the State of Maryland, where they will find a delightful and healthful climate, first-class markets for their products and plenty of land at reasonable prices. Maps and descriptive pamphlets will be sent free upon application to STATE BOARD OF IMMIGRATION, Baltimore, Md.

FOR SALE — High grade farm lands in Oscoda County. Near Tustin, Michigan. These were hardwood lands and no pine stumps on the land. Soil is gravel and rich clay. Well settled country with schools and good roads. H. W. MARSH, Manistee, Mich.

## OCEANA COUNTY, MICHIGAN

I sell farms in this Co., the best in U. S. Fruit, Grain, Poultry, Stock. All sizes, easy terms. If the people of U. S. knew the advantages to be had here, in 24 hours there would not be standing room. Write for list and literature.

J. D. S. HANSON, Hart, Mich.

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J. E. MERRITT, Manistee, Mich.



## SOME OF OUR WILD FLOWERS.

(Continued from page 543).

most apt to find in our wanderings is the *myosotis laxa* (smaller forget-me-not) which has small, blue flowers borne in a raceme.

**Mountain Laurel—Calico Bush.**—(*Kalmia latifolia*).

The mountain laurel grows in tall-shrub or tree form and, unlike the azalea, has heavy, shining, evergreen foliage. The flowers are produced in umbel-like clusters and range in color from the brightest pink to white, but whatever the shade each lobe of the corolla will show a small



Flower Cluster of the Mountain Laurel.

black dot that is, undoubtedly, responsible for the name "calico-bush" common in some localities.

In other places the bush is called spoonwood, from the fact that the Indians, finding the wood very fine of grain and almost unbreakably tough, made eating utensils from it.

One who has ever noted the pouch-like form of the lobes of the corolla in other laurels will find the same thing here (two depressions in each lobe), and the way in which the anther of each of the ten stamens is caught in these causes the filaments to spread in exact imitation of the spokes in a wheel. This one characteristic feature makes it impossible to mistake the laurel for any other flower, or any other for it.

The leaves are very poisonous and when placed in cold water a crystalline substance gathers on them that is as deadly in its effects as strychnine. This knowledge was made use of by such Indians as were in a hurry to reach happier hunting grounds—if old-time tales are to be believed.

Specimen bushes of the mountain laurel are grown in some famous London gardens, and at the blooming season the people are invited (thru the newspapers), to come and see them, and they come from all the surrounding country to see no finer specimens than those that cover many a waste hillside with beauty for us.

Its commonness can never lessen its beauty, and Connecticut chose one of our most beautiful flowers when she chose the mountain laurel as her state flower.

**Flowering Dogwood.**—(*Cornus florida*).

The flowering dogwood grows from twelve to twenty (even thirty) feet in height and one who has ever seen a tree in bloom will recognize them at a great distance, tho comparatively few will know that the white objects they call the petals of the flowers are merely the blanket in which the true flowers (little greenish-yellow ones found in the center of the seeming large one), were wrapped.

These petal-like bracts, which seem so dazlingly white when wide open, have a decidedly purplish tinge on the back and this is the reason the tree seems to come so suddenly into bloom. While the bracts are folded over the flowers the purplish side shows, but a bright day, or a sudden shower, may start the seal (where the little red-brown notches show) and in a few hours the bracts spread wide open, showing the white side, only.

As it is these bracts that cover the tree with its snowy blanket of beauty we care not at all whether we are admiring make-believe flowers or true ones, and we know the bracts (forming what botanists call an involucre), are no more deceitful than the white spathe of the calla, the striped one of the Jack-in-the-pulpit, or the showy part of many other so-called flowers.

The flowers that can, barely, hold their heads above water, and the ones rearing themselves skyward to attract attention from afar off, are not the only ones to be found during May and June for, during these months, every bit of old Mother Earth is serving as nature's flower-garden and all uncultivated lands—high or low, wet or dry—have treasures ready for our finding.

## CONCRETE IN THE ARTS.

BY A. A. HOUGHTON.

The average reader associates the use of concrete, or "liquid stone," with solid, substantial structures and not with the creations of the artist's brain and skill.

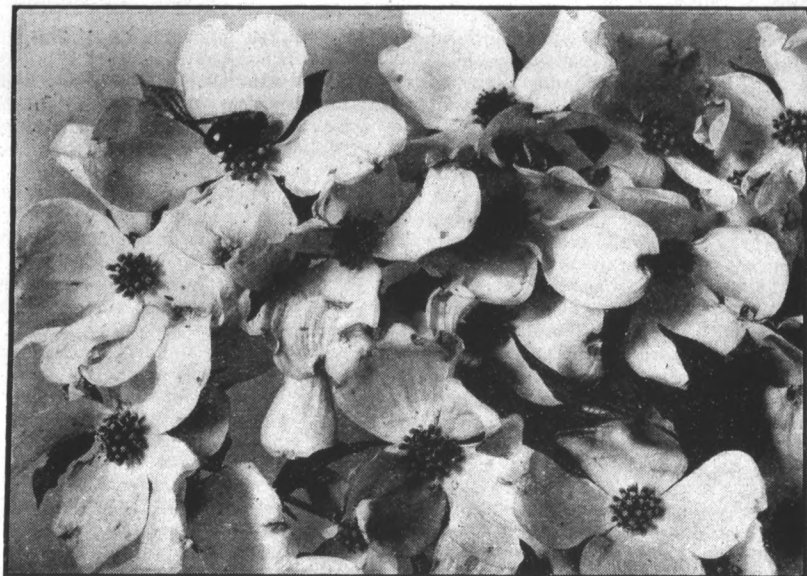
Yet in the molding of artstone for many purposes, the use of concrete is rapidly replacing the more expensive and laboriously prepared hand carved stone, as the concrete is far less in expense and can be produced in a greater variety of colors and finishes; and when the new, quick-drying cements are used the molding occupies but a few moments time.

The model for the ornament is first molded in the ordinary modeling clay and is then placed in a small wooden form, or box, and this is filled with a thin mixed solution of plaster of paris; when this is dry, and consequently hard, it makes the mold for the ornament, it is

coated with a solution of shellac to give a smooth molding surface and the concrete mixture poured into same and allowed to dry before removing, thus producing a perfect and beautiful cast of the original model in a material that has all the beauty with none of the defects of natural stone.

Very excellent imitations of marble are now made by employing the white brands of cement and combining with marble dust as an aggregate, or even white sand, this when cast under pressure has the appearance of genuine marble, making it possible that our buildings of the future may be marble palaces without the necessity of a quarry. Granite is also imitated by the use of crushed granite combined with certain proportions of cement and molded in the usual manner, in fact, the imitation is so close to the appearance of the genuine that it can only be detected by a close examination of the structural grain by an expert.

Many employ common glue as a ma-



Closely Massed and Showy Bloom of the Flowering Dogwood Tree.

terial for the molds instead of the plaster of paris, and as both are of value and the means of securing artistic artstone at a slight expense the difference is immaterial as far as practical results are concerned.

The cement that is best for this purpose, and which is extensively used in Germany, Belgium and France, is very quick in setting or crystallization, this process taking place in from four to five minutes so that a number of casts from the same mold can be made in each day.

This cement is regulated in the process of burning and is produced entirely for the purpose of molding artstone, which is increasing in popularity every year.

## LITTLE ESSAYS.

BY CARL S. LOWDEN.

The man who does the greatest good is rarely the man that makes the biggest noise in doing it.

To find a lost opportunity is like hunting for a small needle in a large haystack. It is very hard to find; and usually the opportunity comes once, and if not accepted, goes forever.

The difference between a wise man and a fool is probably this: The wise man knows his own faults, while a fool does not.

Truth is eternal. A false statement may survive for a short time, but it is the true statement that will exist always, that will live on and on.

There is a certain sweetness in melancholy. To be sad and pensive and to commune with one's inner self is really pleasurable and intellectually refreshing. Meditation gives knowledge.

Two types of honest persons exist: one

believes honesty is the best policy, and uses it for the furtherance of selfish desires; the other type declares honesty is truth, and morally right.

In the common little postage stamp there lies a moral, or rather a virtue; it sticks till it gets there, whereas so many human beings are often half-hearted and indifferent; they do not stick till they get there; they let loose too soon.

Regarding optimist and pessimist, some wag has written, "The optimist sees the doughnut, the pessimist, the hole." The pessimist sees discouragement where none exists; the optimist sees encouragement where there is none.

"Swiping" is a vice—a gentlemanly vice. Many persons, who "swipe" various articles, abhor stealing, and yet this new vice is simply the old one with a new name. Children are proud of their "swiping" abilities; and as an answer to the question, "where did you get it," a child likes to say, "O, I swiped it."

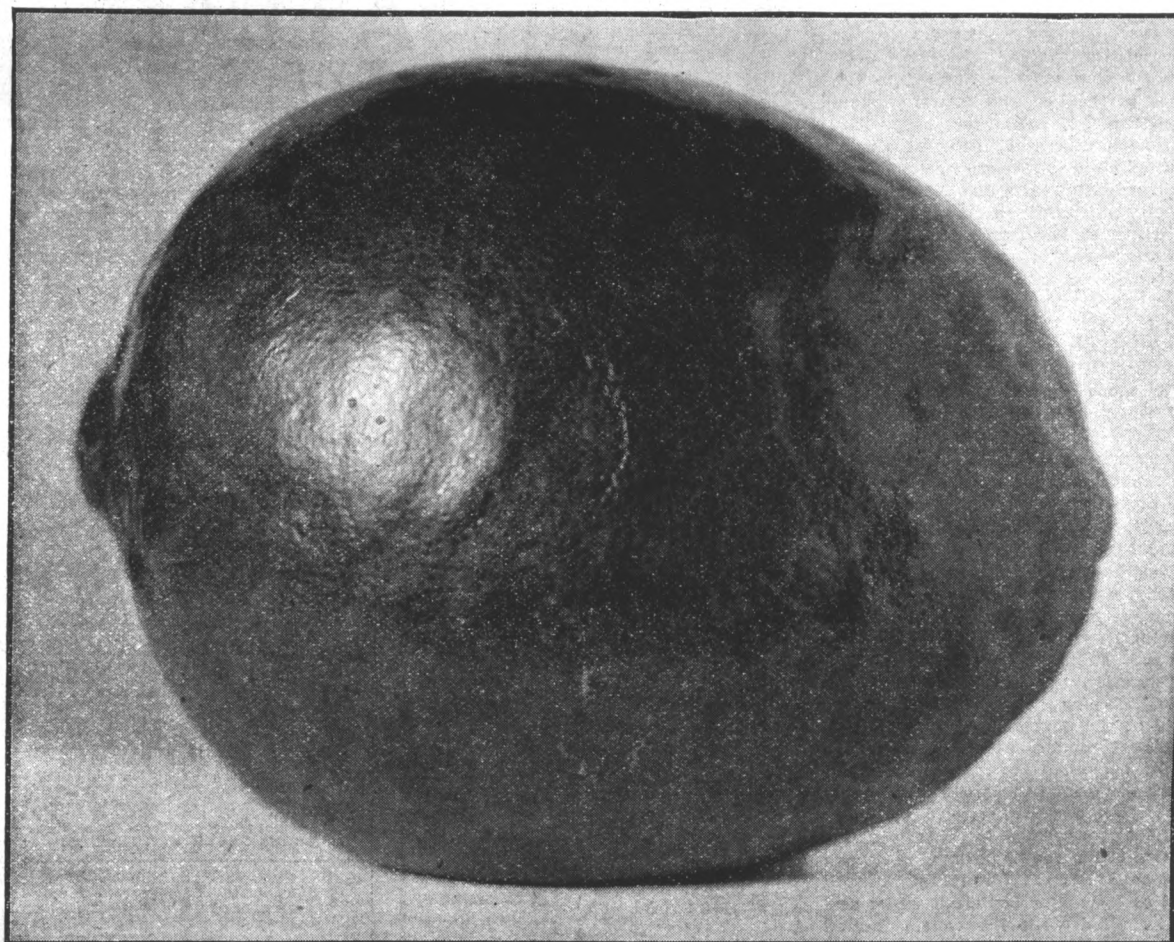
At some time there is a crisis in every man's life—to do or not to do. On a moment's decision depends the future, and in that moment is concentrated his past deeds which formed his character. One will decide according to his past.

## APPLE BLOSSOMS.

BY ALONZO RICE.

The Alpine peaks with crystal hoods of snow,  
The ruins crowning heights along the Rhine,  
Are views both beautiful and grand, I know;  
But there's another—closer home—and mine!  
'Tis where a brown old homestead nestles soft  
Against a hill, and broad fields stretch away,  
And in the maple branches, high aloft,  
The robin gives to all his sweetest lay;  
The scene is one of rapture and of bliss,  
When breezes of the early summer blow,  
And the red lips of the apple blossoms kiss  
The blue eyes of the violets below!

Let others fare to far off, distant climes,  
Enraptured by each castle, crag and scaur,  
The splendors of the olden, vanished times,  
Or sunny scenes that sleep in isles afar;  
Home-biding, let me wander here where swell  
The flowered fields whose scented billows roll  
With white caps of the daisies; winds that tell  
The secret of the rose whose heart they stole;  
That I for just one season may not miss  
The beauties of that scene I cherish so,  
When red lips of the apple blossoms kiss  
The blue eyes of the violets below!



**Ponderosa Lemon.**—The above cut represents the exact size of a lemon grown by Mr. Henry D. Cox, of Franklin, Oakland Co., Mich. It weighed, when picked, 1 lb. 10 oz., and measures 14½ by 15½ in. in circumference. Mr. Cox states that it requires a full year for fruit to ripen on a tree kept under the conditions which this climate necessitates, and that his tree is carrying ripe fruit, green fruit and blossoms at the present time.



## OF INTEREST TO WOMEN

### HOME CHATS WITH FARMERS' WIVES.

BY ELLA E. ROCKWOOD.  
Insect Pests.

With the approach of warm weather all insect life is aroused to increased activity and vigor. Insects multiply with amazing rapidity and frequently become a source of annoyance and inconvenience to the human family.

The vegetable and flower gardens have their particular enemies of this type and it is not uncommon to see cherished plants wither and die from attacks which strip them of foliage or despoil them of blossoms and fruitage. Rose bushes are now kept thrifty only thru persistent effort in watching for and combating the destroyers sure to appear. If left to themselves sad havoc is certain to be wrought and many a garden once gorgeous with the popular and beautiful flowers is now but a tangled mass of dead and dying briars.

Our vegetables and fruits fare even worse and almost in an hour the despoilers suck the juices of the plants or eat the heart of the setting fruit. Indeed, success in garden and orchard is only won by ceaseless vigilance and the use of such insecticides as have been proven potent against the enemy. And all this because the birds, insectivorous by nature, have been driven out of the country or destroyed. Let us remember when robin redbreast takes a few berries or cherries, that he also eats worms and bugs which prey upon the plants and that his sharp eyes are searching for these every moment of the day.

But to the housewife insect life in other forms is far more annoying and sometimes equally destructive because they enter her particular domain, the home, often in spite of her every endeavor to exclude them. One of these is the house fly, which has become recognized as a public nuisance and a menace to health. Boards of health have declared this agile insect an outlaw and have traced to it the spread of many of the diseases with which they have to deal. That it is a *filth conveyor* of the first class is clearly evident and one need no longer be set down as overly nice or finicky because they protest against the food they eat made a camping ground for these unclean creatures.

The day will undoubtedly come when general and concerted action will be taken against the house fly, as has already been done in some places. In the meantime, much may be accomplished by individual work in reducing and holding in check the numbers in and about the home.

A study of this fly, which is separate and distinct from others generally classed under the general heading of flies, shows that its breeding place is almost invariably in and around horse stables. The eggs are there deposited and hatch out by millions every season. Experiments have proven that it is entirely possible to hold this nuisance in check very appreciably if not to exterminate it entirely by applying kerosene emulsion freely to their breeding places, the horse-manure pile. The house fly, so scientists tell us, does not wander far from the spot where it was hatched and it is altogether probable that those found in and about any particular home were hatched and matured upon the premises.

To thoroly spray the stalls and indeed, the whole immediate surroundings, once or twice a week during summer would not be a very great task, and to do so could not fail to be of material assistance in abating the fly nuisance. Carbolic acid in water, one to 30, would undoubtedly have the same effect as the kerosene. This is a disinfectant and insecticide at the same time.

Good screens are a necessity, and with wire cloth as well as the ready-made articles so cheap as at present, there is no valid excuse for their absence from doors and windows. To be effective the screening must be complete, not an opening left where the flies may enter.

Undoubtedly, full length window screens are most effective. When framed and hinged outside the casings so they may be opened or shut as desired, the limit of utility and convenience is combined therein.

Every outside door should have a well-fitting screen, provided with a reliable spring. The separate spring made of

coiled wire I consider preferable to spring hinges which may become extremely unreliable. If the door is thrown open a little too far the hinges throw it still wider and it lands against the side of the house where it remains until forcibly restored to its rightful position. Doors provided with this style of hinges are quite sure to be left open by careless persons and children.

To keep at bay the advance guard of the invaders screens should be put early in position and kept in place until snow flies.

Swill pails and scraps of food about the door are no doubt the means of attracting flies to the house. Anything of that kind draws them as a magnet draws steel.

One woman who declared war against the fly had her husband make a good-sized wooden box provided with a hinged cover. Into this the pails were set and with the cover closed there was nothing to attract winged visitors. Tragedies by drowning of young poultry were also done away with. The box was neatly painted and presented a far more sightly appearance than the pails did without it. This suggestion is well worth following. It is not surprising to learn that it was the contrivance of a woman said to be the neatest housekeeper in the neighborhood and those pails were faithfully scrubbed with soap and hot water every week.

Another pest with which even the most careful of housewives may have occasionally to deal, is the bed bug. Individually or collectively, this insect is loathsome and repulsive. How a house becomes infested with them is often a question surrounded with mystery. Travelers sometimes carry them from hotels or trains, hired help may be the medium thru which they are introduced, children may bring them from school or they may come from any one of a number of sources. Whatever may have been the means, no time should be lost in searching out and destroying these worst of all insect pests as soon as discovered.

With a problem of this kind there can be no half-way measures. Beds must be taken apart and thoroly gone over once a week at least. If there is reason to suspect they have gained lodgement in floors, these must be scalded time after time. With all vigilance some of the pests are liable to escape destruction and strays will very likely make their appearance at intervals for a year or more, once they become established.

Certain well known remedies, if persistently applied, will avail. Not a particle of surface must be overlooked or a crevice left untreated. Corrosive sublimate in solution may be applied to the framework of the bed and to the wooden parts of springs, if such there are. This is rank poison and must be kept out of the reach of children. Kerosene oil, gasoline or turpentine are also effective if freely applied. These penetrate all cracks and are death to low forms of life. Hot, strong alum water is also recommended. Insect powder or pyrethrum cannot be relied on since it sometimes stupefies and does not kill.

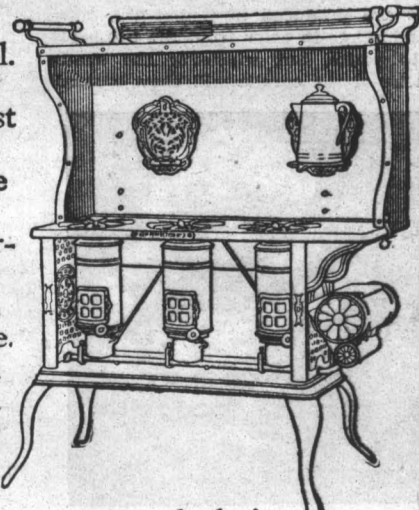
From an infested room all bedding must be cleansed with boiling water. For mattresses a thoro spraying with gasoline carefully working under the tufting, will be necessary. It may be wise to burn an old one rather than bother with it. Gasoline must never be used where there is a fire anywhere near, as it is a dangerous explosive. An infested bedstead if of wood and not particularly valuable, may better be burned. Metal beds are more easily dealt with since there are fewer places inaccessible to inspection, also all metal springs.

No woman should be blamed for having an infection of this kind brot into her home. However, it devolves upon her to get rid of the pest as soon as possible.

The carpet beetle is another insect which gives trouble to the housewife. These insects seem to migrate quite mysteriously. Some years ago they were much more numerous in this vicinity than now. The rooms where they are found should have their floors washed with hot soap suds or hot alum water and all cracks filled with kerosene. Tarred paper is said to be something of a preventive by reason of its odor. The edges of a room are usually infested the worst. To paint the floor all around and not have

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## B. P. S. Paint--Ground Fine



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rug or carpet come nearer than half a yard to the base will help to hold the pest in check. Where a carpet is found to have the insects at work in it, no better way has been suggested than saturating the edges with gasoline or benzine as far in as necessary. This must never be done without opening all the windows and doors to assist in evaporation, and neither light nor fire must be permitted near until the odor has disappeared. Steaming by the use of wet cloths and hot flat irons will kill these pests but is a task attended with much labor of a tiresome nature. The ant is another insect which at certain seasons annoys the housewife by getting in her pantry and invading any open dish which contains food to its liking.

To keep ants out of a sugar box it is only necessary to place in it a bit of clean cloth saturated with camphor and the same means will avail to keep them out of cupboards if the camphor is frequently renewed.

Whenever the ants can be traced to their nests much inconvenience can be spared by drenching them at evening time with a kettle of boiling water. Ants do not usually bother for a longer period than a few weeks, when they disappear for the season. Various means of trapping them have been devised, such as the sponge wet in sweetened water, the plate spread with lard and the open dish containing vinegar and sugar. Repellants such as the camphor, are any of the essential oils which are effective only so long as they retain their odor. Oil peppermint rubbed on shelves will often keep them at bay—so also will oil of lavender or oil of cedar.

Moths do considerable damage to upholstered furniture, carpets and clothing. They must be kept out by not permitting the female moth to deposit her eggs in the fabric. This she does in spring. Furs and woolens must be thoroly brushed then put away in sealed trunks, bags or boxes. Oil of cedar will tend to repel the attacks of the moth. Cedar chests are recommended as a depository for the same reason. Other repellants are sold under the name of moth balls, which are usually effective, if placed among the articles. For infested carpets, rugs and upholstery, about the only remedy is thoro application of gasoline, used out of doors.

Insects of various kinds are the source of inconvenience and annoyance to mankind and we sometimes wonder why they were ever created, and what purpose they were intended to fill.

### COOKING RICE.

BY MARY FOSTER SNIDER.

Many excellent cooks fail in cooking rice to perfection, and it is a food so wholesome and palatable that the plainest chef should endeavor to serve it at its highest degree of palatability. Thoro washing is almost as important as the cooking, as unless the rice kernels are washed thru sufficient changes of water to free them from their floury covering the cooked rice will be pasty and floury as well. It should never be considered properly washed until the water will drain off quite clear. To one teacupful of washed rice allow two quarts of rapidly boiling water, drop in the rice slowly, and stir it once or twice until the water is again boiling fast, then let it cook without stirring until done. Add a teaspoonful of salt when about half done. When soft, drain off the water, and let it steam over the fire in a double boiler for ten minutes. Just before serving stir quickly in one tablespoonful of butter. Serve plain as a vegetable, or with cream and sugar or custard if for a sweet. No dessert is more healthful and nutritious for children than one of plain boiled rice.

### COSTUMERS.

BY E. E. BOGUE.

I want to tell you about our costumers. One of them has for a base the bottom of an old organ stool. This bottom is iron, and the upright piece and the pins are of oak, stained to match the weathered oak bedroom suit. Another similarly made—but all wood—is stained forest green, and the third one enameled white to match the rooms in which they are used. I have mine standing by the dresser in my dressing room, and hang my clothes upon it at night ready to put on in the morning, or when dressing for any occasion, I get out and place upon it all that I want to wear, that can be hung up. They are home-made, inexpensive, and a great improvement over throwing one's clothes over a chair.

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## THE PUMP THAT



## The Tenderfoot Farmer

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fed her shavings. His theory was that it didn't matter what the cow ate so long as she was fed. The questions of digestion and nourishment had not entered into his calculations.

It's only a "tenderfoot" farmer that would try such an experiment with a cow. But many a farmer feeds himself regardless of digestion and nutrition. He might almost as well eat shavings for all the good he gets out of his food. The result is that the stomach grows "weak," the action of the organs of digestion and nutrition are impaired and the man suffers the miseries of dyspepsia and the agonies of nervousness.

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## HORTICULTURE

### SAVING THE APPLE CROP.

A careful examination of apple blossoms in 1907 and 1908, and in other seasons when the crop has been lost, showed the flower stalks and the calyx of the fruit to be covered with a greenish mold or mildew. This was the apple-scab fungus, a disease which later on attacks the leaves and the growing fruit and often does great harm. Altho the injury is not as well understood, this fungus often causes even greater losses when the weather is cold and wet at the time the trees blossom, as this condition is favorable for the development of this disease. As a result of the attack, the flower stalks shrivel and the crop may be entirely destroyed. Generally, however, some of the flowers escape complete destruction but if the calyx is much injured, the fruit may drop after it has set and the ground may be covered with small apples with numerous fungous spots upon them. This is often spoken of as the "June drop."

Like all fungous diseases, the apple-scab can be controlled by the use of Bordeaux mixture. This is composed of three or four pounds of copper sulfate and four or five pounds of stone lime in 50 gallons of water. After slaking the lime and dissolving the copper sulfate by placing it in a coarse bag and suspending it in ten gallons of water so that it will be just below the surface, the copper sulfate solution is placed in the spraying barrel and diluted to 25 or 30 gallons. The lime should also be diluted and strained into the barrel which should then be filled up with water.

The best results are obtained when the application is made, just before the blossoms have opened but after they have developed so that the individual flowers can be seen. The spraying should be so thoro as to give them a complete coating and, at the same time, cover the opening leaves. To do this, the trees should be sprayed from at least two sides and the pump should be one which will give a high pressure so as to produce a mist-like spray.

By the addition of two pounds of arsenate of lead, or six ounces of Paris green, it will be possible to also control the plum curculio and other chewing insects which feed upon the leaves and blossoms at this time.

Agri. College, Mich.

L. R. TAFT.

### LATE MAY WORK IN GARDEN.

One of the most urgent demands of the present time is the culture of the crops already in. The soil can be worked pretty wet if only the work is continual and kept going, but it will not work well with the heavy ground to work it while wet and then let it lie to bake in the sun. The cultivation will assist in drying it out if it is kept worked and fined and made mellow as it dries. Keep the tools running as the soil dries and there will be little fear of hard lumps or crust. It matters little how cold or wet it may be, the weeds take no vacation and if allowed to grow they will draw as much fertility from the soil as do the vegetables; and if at all possible, they had better be disposed of as fast as they appear. A few hours, when the weeds are first appearing will accomplish more than days of hard labor after they have become well established and have taken firm root.

The best treatment for the late cabbage crop and also cauliflower is just at this time to cover the ground with manure and turn it under, plowing only deep enough to cover the manure. Of course, the better the quality the better for the crop and the application should be liberal. Frequent light culture may be given up to the time of planting, then plow again and deep enough to go well below the manure. If done at once, the plant food will be in shape to act quickly by the time plants are ready for setting and the growth will be active and rapid from the start. The requirements for cauliflower and cabbage are nearly the same, except the former really needs more fertility and water than the latter. If then there is choice in location, give the cauliflower the benefit of the cooler, moister ground as of the two it is a grosser feeder both as to fertility and moisture.

As to the late crop of celery, the same treatment as above will bring good results. If ground is occupied by other crops once plowing after their removal will have to suffice, but wherever possible this same general plan will amply repay

all trouble. The ground should be full of manure, but well rotted and thoroughly incorporated with the soil and also with the surface. Celery is a gross, but shallow feeder, and in all the tillage and fertilizing this idea should be borne in mind. Keep the fertility, of whatever nature it may be, close to the surface, where it will, while still covered, be convenient and readily available to the plants. So if possible apply the above management, especially that of twice plowing, it is the ideal way of fitting the ground.

With all the above outline in "tow," with whatever of the unexpected may intervene, it fills the latter part of May pretty full.

Wayne Co.

J. E. MORSE.

### SETTING STRAWBERRIES.

In setting strawberries a little planning will save much labor in cultivation and other labor during the season. The plants may be set in double rows, say 6 and 32 inches apart, and an attachment fastened to the cultivator to cultivate the narrow row with the wide one. Or the plants may at least be set so they may be cultivated both ways until it is necessary to layer the runners and thus save much hand labor. If the rows are to be layered in double rows, three feet each way is a good distance, if in single rows they may be placed a little closer; if matted rows are desired they should be three and one-half or four feet. The distance apart in the row will depend upon the variety, those making numerous plants being set three feet while those that are shy plant makers may be set farther apart.

In digging plants this season we find that they are not as thick as usual, due to the dry weather last fall. Still, this may be an advantage as those that are rooted will have plenty of room in which to develop.

In preparing the plants for setting, we take off the old runners and leaves and clip the roots off the plants slightly. This root clipping is of some value in enabling the plant roots to be spread into a fan shape rather than to remain in a mass in the hole. It is also supposed to facilitate rooting, but of this I am not sure so far as my observations go. We usually leave about one leaf besides the bud, more to show the position of the plant in the early cultivations than anything else, as the less leaf surface left, the better, until the plant is established, and the bud will develop as soon as the plant needs leaves.

We follow the spade method in setting the plants as I believe it is the easiest, just as rapid, and just as good as any other way, and I do not care to sit all day on my knees with a trowel or short handled hoe if it can be done just as well and as rapidly in a standing posture.

After the plants are set the ground should be cultivated soon to form a mulch and prevent evaporation of moisture. A fine tooth cultivator is a necessity for this work as one must be very careful not to cover the crown of the plants. If the plants were freshly dug and set at the right depth and the soil compacted firmly about the roots in setting; and the ground is stirred frequently with the cultivator and hoe there should be few vacancies.

Calhoun Co.

S. B. HARTMAN.

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Edward Pagels, Joint Ticket Agt. Union Depot Ticket Office, Columbus, Ohio, writes: "I used Pyrox and Disparene the past season on apple trees and other fruits. In my neighborhood no one had half as many apples to the tree as I had. I used the Pyrox twice in early spring and Disparene after the fruit had formed. You know all about the unfavorable season, hence it is only necessary to say that I believe what I got was entirely owing to my spraying as indicated in the foregoing. Disparene three lb. to 50 gal. of water and even a little stronger will kill any kind of insects. Some young trees, three years old which I omitted from the spraying, became literally alive with a red-headed caterpillar late in the summer and had almost every leaf destroyed before I discovered them. I went after them with Disparene one afternoon; the next morning all were dead and drying up. Both Pyrox and Disparene adhered to the foliage remarkably well thru heavy rains. "Pyrox" does not wash off the foliage like Paris Green, but sticks like paint thru even heavy rains. We endorse it. Address this paper or Bowker Insecticide Co., Boston, Mass.

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## POULTRY

## HANDLING AND FEEDING NEWLY HATCHED CHICKS.

When the chicks begin to come out of the shell do not run to the nest every half hour to see how many there are, and don't leave the nest open for other hens to disturb the one that is hatching chicks. I do not know why it is, but a hen may sit for twenty days without other hens offering to crowd into her nest, but when hatching commences it is a common occurrence to find two or three layers crowding in if by chance they find an opening. The result generally is that many if not all of the chickens are injured or killed in the nest. Feed the hen well the last week of the incubation period, for very few hens will leave the nest to eat after they can hear the chicks.

If the hen is a quiet old biddy just leave her alone until the morning after the hatching begins. If not, I visit her early in the morning and take out all shells and all chicks that are strong and dry. I put a piece of old blanket or any soft warm material into the bottom of a box or basket, then put in the chicks and cover them. The nicest thing for this purpose that I have found is a felt hat or a heavy cap. Tuck the chicks under, set the basket in a warm room and let them alone. If they are warm they will be quiet and happy. At night, after all is still, I visit the hen again and remove all shells and dirt that may be in the nest. Then I tuck all her chicks under her, putting them under from in front. Never attempt to put a chick under a hen from behind. Many times it is only necessary to put them in front of her; she will do the rest.

I usually set two or even three hens at the same time. Then I give the chicks all to one hen to raise. A good hen will easily care for 20 chicks if given a roomy coop.

Now as to feeding. Do not feed the chicks anything until they are at least 24 hours old. They won't be starved. Much better leave them 30 or even 36 hours than to feed before they are 24 hours old. I find, for the first feed, that dry bread finely crumbled is best. Make the crumbs fine and scatter among them on a clean board or large old plate; or the feed may be slightly moistened but should never be wet. Be sure that their feed, of whatever kind, is never so wet that when taken between the fingers it will be crumbly. Many chicken raisers advocate feeding an egg boiled hard, but personally I have had the best success with bread for the first few days, tho it must be the home-made article, as baker's bread will not do. Right here let me caution against trying to save a batch of sour bread (the best of cooks will occasionally have some of it) by feeding it to little chickens. It is almost certain death to them.

After the first few days I feed unbolted corn meal, dampening a trifle and mixing only enough for one feed at a time. Keep all dishes sweet and clean. Feed only what they will eat up clean as it is better to lack a little than to have any left in the dishes, since it is sure to sour and then trouble begins. Feeding in this way, my chicks have never had any bowel trouble.

Of course, you must keep plenty of clean, fresh water and grit of some kind, where they can get it. A very young chick will pick up bits of oyster shell, and egg shells that have been dried and then crushed fine will be eaten readily. A very good way to use egg shells is to keep them in a basin by the stove. By the time the basin is full they will be dry enough to crush easily and may be thrown out. Never throw fresh shells where the hens will get them. It learns them bad habits and an egg-eating hen usually has to be treated with a hatchet, which is sometimes expensive.

If the little coops are cleaned each day it is not much trouble, but if neglected a week it is quite a job. By caring for them in this way I have raised 97 out of a hatch of 100. I once made the mistake of feeding some 6 or 8-week-old chicks two feeds of bran. I had about 125 that had just been taken away from the hens. They were running in a large yard, going into a large two-roomed coop at night. They weighed one-half to one pound. Being a little short of feed I gave them bran mash for dinner and again at supper. The following morning on opening the coop I found several dead and the rest drooping. The floor was literally covered

with blood. Well, I saved most of them, but it was an expensive lesson.

Another thing, don't be led into buying any fancy powder or paint warranted to kill or keep off lice and mites. Good lime whitewash should be freely used and the coops kept cleaned. Once a week cover all roosts with kerosene or, if the can gets empty, take good hot soap suds, or even salt and water, and scald the roosts and nests and you will have no trouble, tho I like the kerosene best as, in a measure, it prevents rough legs. In short, clean dry coops, plenty of light, good clean water to drink every day, and sweet, clean feed will make your chickens, both old and young, a pleasure and a profit to you, tho 'tis a sad fact that you may need a padlock to insure the profit being yours.

Ottawa Co. FARMER'S WIFE.

## HAVE A PLACE FOR POULTRY.

An old adage, "A place for everything and everything in its place," is applicable to poultry on the farm. It is a common complaint among farm women that they can have no flowers, for the "pesky" hens scratch everything to pieces. There is no excuse but laxness that applies to such cases. Many men are so little mindful of the wife's wishes in this respect that they allow hens in the dooryard year after year. They also allow them in the barn, on the vehicles, on the piazza or anywhere they happen to go.

There are few farms so arranged but that it would be comparatively easy to either build an enclosure for the hens, or else enclose the buildings, all but the poultry house, and then let the hens "go it." The most satisfactory method is to enclose the hens. True, it will cost some more to feed them, but a part of the extra cost of feed will be offset by the extra eggs one gets by keeping the hens in until they are done laying for the day, for they delight to lay in stolen nests.

The hens can be let out at say five o'clock to get green food and exercise, and, if stuff is not thrown out about the house, they will keep busy until dark without troubling the house and flower beds.

To me it is disgusting to see hens on the piazza and in the door. I always calculated it was the work of a pretty slack pair of farmers. It is too much like old-world peasant life that we read of where hens, horses, cows and pigs occupy the same building. The peasants are excusable, for their lot is cast in poverty, but Americans seldom have any excuse for such a state of things.

Try fencing your hens in this year and give your wife a chance for flowers without fighting for it. It will do her good and you will enjoy the bright flowers.

Maine. D. J. RYHER.

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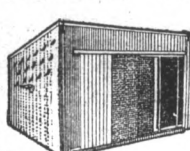
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## MARKETS

## DETROIT WHOLESALE MARKETS.

May 12, 1909.

## Grain and Seeds.

**Wheat.**—Cash wheat has found wonderful strength in the present demand and supply. The government crop report is very discouraging to buyers as it shows that fully 2,000,000 acres of the seeding of last fall has gone under the plow. With present high prices and the prospect that they will continue, farmers are reluctant in destroying fields that have any prospect of making a crop. This, with strong market reports from Liverpool and other foreign centers, and with poor crop prospects in Germany and Russia the position of the trade is exceedingly strong. This strength has favored the cash deal more than futures since the latter values are little changed from a week ago—the margin between cash and futures widening during the past few days several cents. One year ago the price for No. 2 red wheat was \$1 per bu. Quotations are:

	No. 2	No. 1	No. 3	Red.	White.	Red.	July.	Sept.
Thurs.	1.46	1.46	1.43	1.17½	1.08			
Fri.	1.46	1.46	1.43	1.18	1.10½			
Sat.	1.46	1.46	1.43	1.15½	1.08½			
Mon.	1.48	1.48	1.45	1.14	1.07½			
Tues.	1.50	1.50	1.47	1.15½	1.09			
Wed.	1.50	1.50	1.47	1.14½	1.08½			

**Corn.**—This market has maintained the high prices reached a week ago. The dealing is being done on a strong basis with a good demand on account of the delayed warm weather and the continued feeding necessary to keep domestic animals in condition till they can get pasture. The national crop report shows less plowing done for corn at this season than a year ago. At this date in 1908 No. 3 corn was selling at 72c per bu. Quotations are:

	No. 3	Yellow.
Thursday	78	79
Friday	78	79
Saturday	79	80
Monday	78	79
Tuesday	78	79
Wednesday	77½	78½

**Oats.**—Prices are advanced and the market is firm with a good call for the grain. The supply is limited. The outlook for the new crop is not encouraging as the seeding has been delayed so much already that the most perfect conditions will be needed to recover the damage done. One year ago the price for No. 3 oats was 55½c per bu. Quotations are:

	No. 3	White.
Thursday	59	59
Friday	59	59
Saturday	59	59
Monday	59	59
Tuesday	59	59
Wednesday	60	60

**Beans.**—There is nothing doing in this deal. Prices have been advanced but the improvement has not enticed holders to let go of the legumes. The following are nominal figures for the week:

	Cash.	Oct.
Thursday	2.52	2.01
Friday	2.52	2.01
Saturday	2.52	2.01
Monday	2.52	2.01
Tuesday	2.52	2.01
Wednesday	2.52	2.05

**Cloverseed.**—Trading in this division of the market is about over for the season. Prices are on the same basis as they were a week ago. The condition of the seeding is slightly improved. Quotations are:

	Prime Spot.	Oct.	March.
Thursday	5.75	6.55	6.70
Friday	5.75	6.55	6.70
Saturday	5.75	6.55	6.70
Monday	5.75	6.55	6.70
Tuesday	5.75	6.55	6.70
Wednesday	5.75	6.40	6.55

**Rye.**—On account of small supplies there is little doing in this trade. The price is 90c for cash No. 2, an advance of 1 cent.

## Flour, Feed, Provisions, Etc.

**Flour.**—Prices are advanced. Market is firm. Quotations are as follows:

Clear	6.10
Straight	6.49
Patent Michigan	6.65
Ordinary Patent	6.50

**Hay and Straw.**—Prices higher. Carlot prices on track are: No. 1 timothy, new, \$12@12.50; No. 2 timothy, \$11@11.50; clover, mixed, \$11@11.50; rye straw, \$9.50 @10; wheat and oat straw, \$8@8.50 per ton.

**Feed.**—Higher. Bran, \$30 per ton; coarse middlings, \$30; fine middlings, \$31; cracked corn and coarse corn meal, \$31@32; corn and oat chop, \$30.

**Potatoes.**—The market continues easy and quiet, with the average offerings going at a shade lower price than prevailed a week ago. Bermudas are off 25c. Good stock is quoted at 90@95c per bu. New Bermudas, \$5.25 per bbl.

**Provisions.**—Family pork, \$20@20.50; mess pork, \$18.50; light short clear, \$19; heavy short clear, \$20.50; pure lard, 11½c; bacon, 14c; shoulders, 9c; smoked hams, 12½c; picnic hams, 9c.

## Dairy and Poultry Products.

**Butter.**—The past has been a quiet week in the butter trade. It is expected that the decline in creameries will encourage consumers to buy more freely. Dairy goods remain steady. Quotations are: Extra creamery, 25c; firsts, 23c; dairy, 19c; packing stock, 16½c per lb.

**Eggs.**—Prices slid down a notch last week. The demand is strong, but receipts are coming more freely. Market is steady at the new figures. For extra fresh, case counted, 20½c is being paid.

**Poultry.**—News regarding this deal is meagre and the tone of the market is easy. Quotations are: For dressed chickens, 16@16½c; fowls, 16c; ducks, 15@16c; geese, 11@12c; turkeys, 20@21c per lb.

**Cheese.**—Michigan, 16@16½c; brick, cream, 17½@18c; schweitzer, 19@20c; limburger, June, 15c; Oct., 17c per lb.

## Fruits and Vegetables.

**Apples.**—Market higher. Best grades are quoted at \$7@7.50 per bbl.

**Onions.**—Spanish, \$1.75 per bu; home-grown at 75@80c per bu; Bermudas, \$1.30 per crate.

**Vegetables.**—Green onions, 10c per doz; radishes, 20@30c per doz; cucumbers, 50c per doz; lettuce, 8@10c per lb; head lettuce, \$1.50 per hamper; watercress, 50c per doz; spinach, \$1 per bu; parsnips, \$1 per bu; oyster plant, 40c per doz; asparagus, \$1.50 per doz; rhubarb, 40@50c per doz.

## OTHER MARKETS.

## Grand Rapids.

Wheat has made a gain of 5c during the past week, local millers quoting No. 2 red at \$1.46, No. 1 white, \$1.45. Corn is 2c higher, oats and other grains unchanged. Dairy butter is off 1c, jobbers paying the country merchants 21@22c. Creamery is off 2c. The egg market has weakened ½c, quotations now standing at 19c. Meats are steady, dressed hogs remaining at 9c. With exception of ducks, which are up 1c, live poultry is unchanged. The potato market shows weakness, prices at Traverse City, where \$1 was paid for a short time, now dropping to 75c.

**Quotations follow:**  
Grains.—Wheat, \$1.46; corn, 77c; oats, 57c; buckwheat, 60c per bu; rye, 75c.  
Beans.—Handpicked, \$2 per bu.  
Butter.—Buying prices, Dairy, No. 1, 22c; No. 2, 16½c; creamery in tubs, 24½c; prints, 25c.

**Cheese.**—Michigan full cream is selling at 16@16½c per lb; brick, 17c; Swiss, 17c; limburger, 17c.

**Eggs.**—Case count, 19c.

**Potatoes.**—80@85c per bu.

**Cattle.**—Cows, \$2.50@4 per cwt; steers and heifers, best quality, \$3@5; dressed mutton, 8@9c; dressed veal, 6@9c; dressed beef, cows, 5@7c; steers and heifers, 6½@9c.

**Hogs.**—Dressed, 9c.

**Live Poultry.**—Fowls, 14@15c; chickens, 15@16c; roosters, 10@11c; turkeys, 18@19c; ducks, 14@15c; broilers, 1¼ to 2 lbs., 30@32c per lb.

## Chicago.

Wheat, No. 2 red, \$1.46½@1.48; May, \$1.26½; July, \$1.12½.

Corn.—No. 3, 73½@74c; July, 68½c; Sept., 67c.

Oats.—No. 3 white, 56@58½c; July, 51½c; Sept., 43½c.

Beans.—Pea beans, handpicked, \$2.55@2.58 per bu. for choice; good, \$2.45@2.50; red kidney, \$2@2.05 for old.

Butter.—Steady. Creameries, 22@28½c; dairies, 19@24c.

Eggs.—Steady. Firsts, 20c; prime firsts, 21c per dozen.

Potatoes.—Steady. Car lots in bulk, fancy, \$1.02@1.03 per bu; ordinary, 98c@1.

## Pittsburg.

Potatoes.—Michigan, 90@95c per bu.

Apples.—Steady. King, \$6.25 per bbl; Spy, \$5@5.50; Spitzenberg, \$5@5.50.

Eggs.—Western firsts, 22c; do. extras, 22½c; current receipts, 21½c.

Butter.—Creamery, 25½c; prints, 26½c per lb.

## New York.

Butter.—Western factory firsts, 20c; creamery specials, 27@27½c per lb.

Eggs.—Weak and lower. Western storage packed, 22c; do. firsts, 21@21½c; do. seconds, 20@20½c per doz.

Poultry.—Alive, dull and easy. Western chickens, broilers, 25@30c; fowls, 17@17½c. Dressed, firm. Western chickens, 12½c; fowls, 15½@16½c per lb.

Grain.—Wheat, No. 2 red, \$1.43@1.45 per bu; corn, No. 2, 82c; oats, mixed, 60@60½c.

Potatoes.—Per 180 lbs, \$2.87@3.

## Elgin.

Butter.—Market continues firm at 25c per lb., which is a decline of 2c since last week. Sales for the week amounted to 579,600 lbs. as compared with 535,209 for the previous week.

## Boston.

Wool.—There have been heavy arrivals of new wool from the west the past week. While the offerings are being taken freely prices are working higher because of the urgent demand, as manufacturers believe they will have to pay good money for raw material for some time to come.

Leading quotations are as follows: Ohio and Pennsylvania fleeces—XX, 24@35c; X, 32@33c; No. 1 washed, 39@40c; No. 2 washed, 39@40c; fine unwashed, 24@25c; fine unmerchantable, 26@27c; half blood combed, 31@32c; quarter blood combed, 30@32c; delaine washed, 39@40c; delaine unwashed, 30@32c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 23@24c; delaine unwashed, 28@30c; half blood unwashed, 30@31c; three-eighths blood unwashed, 30@31c; quarter blood, 29@30c.

## THE LIVE STOCK MARKETS.

## Buffalo.

May 10, 1909.

(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of sale stock here today as follows: Cattle, 150 loads; hogs, 11,200 head; sheep and lambs, 15,400; calves, 3,000 head.

The quality of the cattle on sale today was considerably better than a week ago and a number of loads of the best cattle sold from \$6.50@6.65. The medium and common kinds were slow sale and a little lower than last week. At the close about everything is sold.

We quote: Best export steers, \$6.50@6.65; best 1,200 to 1,300 lb. shipping steers, \$6@6.40; best 1,000 to 1,100 lb. do., \$5.75@6; best fat cows, \$5@5.50; fair to good, \$4@4.50; trimmers, \$2.50@3; best fat

heifers, \$5.75@6; light fat heifers, \$4@5; best bulls, \$5@5.25; bologna bulls, \$4.25@4.50; best feeding steers, 800 to 900 lbs., \$4.75@4.90; 700 to 750 lb. dehorned stockers, \$4.50@4.75; common stockers, \$3.50@4.

Fresh cows and springers sold strong at last week's prices. We quote: Best cows, \$50@60; medium, \$40@50; common, \$30@35.

The hog market today opened about steady at Saturday's prices and at the close about everything is sold. Pigs were a quarter higher today than Saturday. Prospects look fair for the near future.

We quote: Medium and heavy, \$7.55@to \$7.65; mixed, \$7.50@7.55; best yorkers, \$7.40@7.50; light yorkers, \$7.20@7.40; pigs, \$6.90@7; roughs, \$6.40@6.50; stags, \$5@5.50.

The lamb market today was active and higher.

We quote: Top lambs, \$8.10@8.15; fair to good, \$7.50@8; culls, \$6@7.25; skin culls, \$4@4.50; yearlings, \$6.50@7; wethers, \$6.25@6.50; ewes, \$5.50@5.75; cull sheep, \$2@4.50; best calves, \$7.50@7.75; medium to good, \$6@7.25; heavy, \$4@5.

## Chicago.

May 10, 1909.

Received today .....25,000 40,000 13,000  
Same day last year..20,995 47,395 19,451  
Received last week..46,905 120,086 47,222  
Same week last year..49,309 167,355 65,387

Cattle have been selling recently around 40@50c per 100 lbs. higher than only a short time ago, owing to curtailed receipts and a somewhat larger consumption of beef in various sections of the country. Last week saw some weak spots, however, and it was not difficult to see that with any considerable increase in the receipts of cattle buyers would succeed in establishing a lower plane of prices.

Beef steers have been selling chiefly at \$5.60@6.85, with the cheaper class of light weights selling at \$5@5.95, and choice to fancy heavy beefs going at \$6.85@7.25. Good steers found buyers at \$6.50@6.80 and a medium class at \$6@6.45. Fat butcher stock has shared in the advance, and cows and heifers sold freely at \$3.60@6.90, while canners and cutters had a very good outlet at \$2@3.50. Bulls were higher, selling at \$3.25@5.85, and sales were made of stags at \$5@6. Calves were active at \$6@7.40 per 100 lbs., with an inferior grade of heavy calves selling at \$3.25@5.25. There was a good sale for hay-fed Montana 1,140 to 1,220-lb. steers at \$5.60@5.90, and distillery-fed steers averaging from 1,300 to 1,380 lbs. were purchased at \$6.60@6.85. The stocker and feeder trade has been materially lessened by scanty supplies and unusually high prices, sales ranging at \$3.10@5.85. Many farmers would very greatly like to buy some heavy feeders and return them to market in a few months as finished beefs, but extravagantly high prices stand in the way.

Milkers and springers are scarce and higher, with a good eastern shipping demand, common to prime cows selling at \$30@65 per head.

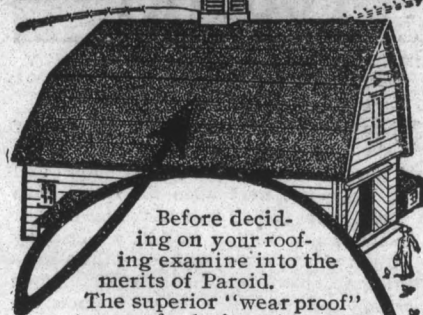
Today's cattle market turned out to be better than was at first expected, the liberal offerings being well taken at steady to 10c lower prices.

Hogs were marketed last week in moderate numbers, and they met with a restricted general demand, prices being apt to display strength for the better grade of shipping hogs adapted for eastern packing points, while the Chicago packers were, as usual, inclined to hold back and buy late in the day at lower prices than early sales. General surroundings of the trade have not changed radically except that eastern shippers have but much less freely, and, of course, a lack of active outside competition is always a help to the local buyers in holding down prices. The average weight of the hogs marketed here has been increasing for a good many weeks and now is 215 lbs., or 14 lbs. per hog more than late last February. The average a year ago was 220 lbs. and two years ago 234 lbs. The strong point for sellers is the hog shortage in feeding sections. Corn planting is expected to check country shipments a good deal. Today's market was largely a nickel lower than last Saturday, with hogs active at \$6.85@7.40, the best light hogs going at \$7.25 and pigs at \$5.50@6.80.

Last week saw record-breaking prices for lambs, there being very small receipts and an active demand. Sellers had everything in their favor, and shorn sheep and yearlings joined in the remarkable boom that was caused by wholly inadequate supplies of everything in the fat mutton line. Until the spring "crop" of lambs is ready to market there is bound to be a great scarcity of sheep and lambs, and fancy prices are assured. There were further advances today, with clipped lambs selling at \$6@8.50 and wooled Colorado lambs at \$8.25@9.50. Shorn sheep were active and firm, ewes being saleable at \$3.75@6.25, wethers at \$6@6.60, rams at \$4.50@5 and yearlings at \$6.50@7.25.

The recent increased strength in the provision market has been a bullish underlying factor in the hog trade of the country. Western packers are credited with owning the bulk of the stocks of lard and ribs stored in Chicago and other western warehouses, and not only has pork sold not far from \$5 per barrel higher than a year ago, with lard and other hog products proportionately higher, but hogs have sold at the highest prices seen in six years. The recent official statements of stocks of provisions in Chicago and other western markets on May 1 show heavy reductions resulting from large consumption in this country, for fresh pork and cured hog meats are cheaper than other meats, despite their dearth. Hogs are in only moderate supply, and only 2,727,022 hogs reached the Chicago market during the first four months of this year, a decrease of 363,331 as compared with the same period last year. So many hogs were marketed when mere pigs in order to avoid feeding high-

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## THIS IS THE LAST EDITION.

In the first edition the Detroit Live Stock markets are reports of last week; all other markets are right up to date. Thursday's Detroit Live Stock markets are given in the last edition. The first edition is mailed Thursday, the last edition Friday morning. The first edition is mailed to those who care more to get the paper early than they do for Thursday's Detroit Live Stock market report. You may have any edition desired. Subscribers may change from one edition to another by dropping us a card to that effect.

## DETROIT LIVE STOCK MARKETS.

## Thursday's Market.

May 13, 1909.

## Cattle.

Receipts, 1,215. Good grades steady; common cow stuff 10@15c lower.

We quote: Extra dry-fed steers and heifers, \$6.25; steers and heifers, 1,000 to 1,200, \$5.50@6; steers and heifers, 800 to 1,000, \$5.25@5.75; grass steers and heifers, that are fat, 800 to 1,000, \$5.25; grass steers and heifers that are fat, 500 to 700, \$4.75@5; choice fat cows, \$5; good fat cows, \$4.50@4.75; common cows, \$3.50@4; canners, \$2@2.50; choice heavy bulls, \$5; fair to good bolognas, bulls, \$4.50; stock bulls, \$3.75@4; choice feeding steers, 800 to 1,000, \$4.75@5; fair feeding steers, 800 to 1,000, \$4@4.50; choice stockers, 500 to 700, \$4.25@4.50; fair stockers, 500 to 700, \$3.75@4; stock heifers, \$3@3.50; milkers, large, young, medium age, \$4@5.50; common milkers, \$2.50@3.50.

Roe Com. Co. sold Sullivan P. Co. 15 steers av 1,090 at \$6, 2 bulls av 1,415 at \$4.75, 1 do weighing 1,180 at \$4.75, 3 do av 1,043 at \$4.50; to Hammond, S. & Co. 16 butchers av \$23 at \$4.75; to Fitzpatrick Bros. 2 cows av 1,000 at \$3.50, 2 do av 870 at \$3; to Caplis 3 do av 906 at \$4.50, 2 do av 855 at \$4, 1 do weighing 920 at \$3, 1 do weighing 1,010 at \$3.50, 13 butchers av 468 at \$4.40, 3 do av 450 at \$4.50, 7 do av 914 at \$5.50; to Kamman Beef Co. 21 steers av 1,090 at \$5.75; to Sullivan P. Co. 17 do av 1,046 at \$5; to Hammond, S. & Co. 1 bull weighing 1,100 at \$4.50, 1 do weighing 1,800 at \$4.75; to Newton B. Co. 1 do weighing 630 at \$4, 2 steers av 675 at \$5.

Bishop, B. & H. sold to Mich. B. Co. 16 butchers av 812 at \$4.60, 2 cows av 1,025 at \$4.50, 1 steer weighing 780 at \$5.25, 1 bull weighing 1,250 at \$4.50, 5 butchers av 760 at \$5.25, 1 heifer weighing 540 at \$3.75; to Bresnahan 1 bull weighing 740 at \$4, 2 cows av 890 at \$2.75; to Goose 8 butchers av 353 at \$3.50; to Sullivan P. Co. 3 cows av 976 at \$4.50, 2 do av 905 at \$2.75; to Mich. B. Co. 11 steers av 990 at \$5.80, 8 do av 746 at \$5.40, 3 cows av 1,050 at \$4.75, 3 do av 856 at \$4.50, 3 do av 893 at \$3, 8 steers av 818 at \$5.60, 3 cows av 1,283 at \$4.75, 2 bulls av 1,240 at \$5, 1 do weighing 1,170 at \$4.75; to Hammond, S. & Co. 2 steers av 1,250 at \$6.25, 14 do av 1,374 at \$6.25, 6 do av 1,046 at \$5.90, 3 do av 666 at \$4.75; to Schuman 10 do av 1,060 at \$5.75; to Bresnahan 5 cows av 896 at \$3, 3 do av 893 at \$3.50, 13 butchers av 1,040 at \$4.65.

Bishop, B. & H. sold Mich. B. Co. 8 steers av 721 at \$5.20, 1 heifer weighing 730 at \$3, 1 do weighing 850 at \$3, 2 cows av 1,025 at \$4.50, 12 butchers av 700 at \$5.25, 3 heifers av 710 at \$4, 4 bulls av 1,540 at \$4.75.

Spicer, M. & R. sold Caplis 3 bulls av 966 at \$4.75, 2 cows av 780 at \$3.75, 1 do weighing 780 at \$3, 1 do weighing 860 at \$3, 1 do weighing 870 at \$3.25, 1 do weighing 620 at \$3.25, 11 butchers av 673 at \$3.65, 1 heifer weighing 450 at \$4.25; to Kull 11 butchers av 798 at \$5.50; to Hammond, S. & Co. 1 bull weighing 1,070 at \$4.75, 1 do weighing 1,530 at \$4.75; to Sullivan P. Co. 2 steers av 1,150 at \$5.75, 1 do weighing 1,060 at \$6.25; to Mich. B. Co. 5 do av 834 at \$5.30, 3 cows av 1,150 at \$4.75, 3 do av 926 at \$3.50; to Fitzpatrick Bros. 1 steer weighing 1,050 at \$6, 2 do av 835 at \$5, 5 cows av 1,220 at \$5; to Newton B. Co. 11 steers av 1,066 at \$6.10, 2 cows av 1,165 at \$5, 1 cow weighing 1,150 at \$3.50, 23 steers av 900 at \$5.70, 6 do av 860 at \$5, 17 do av 780 at \$5.40, 9 cows av 935 at \$4.75.

Haley sold Sullivan P. Co. 1 cow weighing 1,170 at \$5.10.

Kuhn sold same 11 steers av 1,074 at \$5.

Stephens sold same 8 do av 900 at \$5.60, 6 butchers av 903 at \$4.70.

Lovewell sold same 3 do av 923 at \$5.50.

Lewis sold same 10 cows av 952 at \$4.50, 6 steers av 986 at \$6.

Angerer sold Bresnahan 31 steers av 860 at \$4.60.

Wilson sold same 3 cows av 1,200 at \$4.45, 2 do av 800 at \$3.45.

Kalahar sold same 5 butchers av 1,100 at \$4.75.

Bennett & S. sold Marx 13 steers av 900 at \$5.65.

Adams sold Fitzpatrick Bros. 8 steers av 887 at \$5.10.

Lowenstein sold Mich. B. Co. 25 cows av 1,063 at \$4.80, 7 do av 1,045 at \$4.80.

Sharp sold same 3 do av 1,046 at \$4.75, 2 do av 960 at \$3.50, 1 heifer weighing 880 at \$5.40, 26 steers av 1,060 at \$5.90.

Angerer sold Eckerd 19 steers av 1,100 at \$5.90.

## Veal Calves.

Receipts, 1,285. Market active and 25c higher. Best, \$6.50@7; others, \$4@6; milk cows and springers steady.

Bishop, B. & H. sold Strauss & A. 13 av 140 at \$7, 4 av 145 at \$7, 10 av 125 at \$6.75; to Newton B. Co. 5 av 130 at \$7, 3 av 110 at \$5, 16 av 125 at \$6.50; to McGuire 24 av 130 at \$6.85; to Fitzpatrick Bros. 17 av 100 at \$4.75; to Sullivan P. Co. 8 av 115 at \$5.50, 22 av 125 at \$6.25; to Goose 13 av 105 at \$6; to Parker, W. & Co. 9 av 95 at \$5, 24 av 130 at \$6.60; to Caplis 29 av 120 at \$6; to Strauss & A. 11 av 130 at \$7, 6 av 155 at \$6.75, 1 weighing 100 at \$6, 2 av 160 at \$7, 9 av 160 at \$7, 1 weighing 150 at \$5, 3 av 155 at \$7, 3 av 115 at \$5, 8 av 150 at \$6.75, 17 av 130 at \$6.60; to Markowitz 4 av 115 at \$4.75, 12 av 125 at \$6.85; to Hammond, S. & Co. 10 av 135 at \$6.50.

Spicer, M. & R. sold Hammond, S. & Co. 3 av 110 at \$5, 23 av 125 at \$6.50, 3 av 100 at \$5, 6 av 145 at \$6.75; to Sullivan P. Co. 7 av 225 at \$4, 43 av 118 at \$6, 15 av 125 at \$6.35; to Applebaum 11 av 110 at \$4.85; to Mich. B. Co. 3 av 127 at \$5, 9 av 125 at \$6.50; to Hammond, S. & Co. 6 av 150 at \$6.65, 9 av 115 at \$6.40; to Newton B. Co. 13 av 125 at \$6.50.

Roe Com. Co. sold Sullivan P. Co. 20 av 130 at \$6.50; to Goose 7 av 225 at \$4; to Hammond, S. & Co. 30 av 135 at \$6.85.

Boyle sold Sullivan P. Co. 14 av 130 at \$6.75.

Smith sold same 5 av 100 at \$5.50, 11 av 140 at \$6.25.

Belheimer sold same 3 av 130 at \$4, 21 av 125 at \$6.85.

Stephens sold Newton B. Co. 9 av 110 at \$6.25.

Kendall sold same 2 av 140 at \$5, 14 av 125 at \$6.50.

Wagner & A. sold same 16 av 105 at \$5, Noble sold same 2 av 115 at \$5, 8 av 135 at \$6.50.

Wagner & A. sold same 42 av 125 at \$6, Bennett & S. sold Young 8 av 125 at \$6.40.

Dwelle sold same 28 av 127 at \$6.50.

Torrey sold same 5 av 120 at \$5.75.

Bergen & W. sold Rattikowsky 11 av 140 at \$6.25.

Kalahar sold Burnstine 29 av 135 at \$6.50.

Weeks sold same 18 av 125 at \$6.50.

Russell sold Friedman 14 av 125 at \$6.25.

Groff sold Goose 10 av 108 at \$6.30.

Sharp sold Fitzpatrick Bros. 9 av 140 at \$6.50.

Downing sold same 4 av 155 at \$6.50, 5 av 100 at \$5.50.

Waterman sold Thompson Bros. 9 av 110 at \$6.25.

Sheep and Lambs.

Receipts, 1,264. Good grades 25@35c higher; common, steady.

Best lambs, \$7.50@7.65; fair to good lambs, \$6.75@7; light to common lambs, \$6@6.50; spring lambs, \$9; fair to good sheep, \$4@5.25; culls and common, \$3@3.75.

Spicer, M. & R. sold Mich. B. Co. 7 lambs av 50 at \$6.25; to Eschrich 10 sheep av 74 at \$3.50, 47 lambs av 70 at \$7.25; to Hammond, S. & Co. 19 do av 82 at \$7.65, 3 sheep av 95 at \$3.50; to Mich. B. Co. 41 lambs av 75 at \$7.35; to Fitzpatrick Bros. 68 sheep av 70 at \$5.25.

Roe Com. Co. sold Mich. B. Co. 9 sheep av 105 at \$4.50.

Waterman sold Thompson 38 mixed av 75 at \$5.75, 7 sheep av 105 at \$4.75.

Boyle sold Sullivan P. Co. 3 sheep av 115 at \$5, 16 mixed av 60 at \$5.50.

Kendall sold same 43 sheep av 67 at \$4.50.

Dwelle sold Youngs 43 lambs av 72 at \$7.50.

Bergen & W. sold Mich. B. Co. 22 lambs av 75 at \$7.25.

Wagner & A. sold Hammond, S. & Co. 3 lambs av 80 at \$6, 3 sheep av 135 at \$4.50.

Bishop, B. & H. sold Mich. B. Co. 6 sheep av 80 at \$4.50; to Sullivan P. Co. 2 do av 110 at \$5; to Newton B. Co. 105 lambs av 65 at \$7.25, 36 do av 78 at \$7.50, 3 sheep av 55 at \$4, 1 do weighing 130 at \$4, 14 lambs av 75 at \$7.50, 40 do av 70 at \$7.25, 40 do av 75 at \$7.50; to Fitzpatrick Bros. 38 do av 85 at \$7.50, 9 sheep av 100 at \$4.75, 22 do av 75 at \$4.50, 24 lambs av 73 at \$6.25; to Youngs 45 sheep av 85 at \$5.

Hogs.

Receipts, 4,285. Market steady at last Thursday's prices.

Range of prices: Light to good butchers, \$7.30; pigs, \$6.50@6.75; light yorkers, \$7; stags, 1/2 off.

Spicer, M. & R. sold Sullivan P. Co. 47 pigs av 110 at \$6.75.

Bishop, B. & H. sold same 105 pigs av 100 at \$6.60, 26 av 105 at \$6.75.

Sundry shippers sold same 48 hogs av 170 at \$7.25, 74 av 170 at \$7.20, 147 av 179 at \$7.30, 44 av 150 at \$7.12 1/2.

Roe Com. Co. sold Parker W. & Co. 38 av 185 at \$7.30, 51 av 160 at \$7.25.

Spicer, M. & R. sold same 228 av 190 at \$7.30, 185 av 170 at \$7.25, 140 av 150 at \$7.20, 120 av 150 at \$7.15.

Sundry shippers sold same 275 av 180 at \$7.30, 325 av 165 at \$7.25, 64 av 150 at \$7.

Bishop, B. & H. sold Hammond, S. & Co. 719 av 190 at \$7.30, 207 av 160 at \$7.20, 1,076 av 160 at \$7.25, 275 av 150 at \$7.15, 42 av 150 at \$7.10.

Sundry shippers sold same 151 av 170 at \$7.25, 43 av 180 at \$7.15.

## VETERINARY.

(Continued from page 541).

or fifteen days. Bandage leg in cotton but don't use any liniment, only bathe it with equal parts alcohol and warm water, before applying the cotton. Turn him out to grass as soon as possible.

Schirrus Cord.—I have a 10-year-old horse that has a bunch in his scrotum ever since he was castrated; during hot weather this swelling is larger than in cold. On the same side there is a ridge running down side of sheath. Our Vet. gave me a good prescription composed of iodine and other drugs, but it failed to do much good. What would be the result of an operation? J. T., Yale, Mich.

When your horse was castrated the end of cord adhered to skin of scrotum, instead of retracting back into body; consequently a tumor has since grown on end of cord and perhaps a portion of the cord has become diseased. The operation of removing this tumor is a simple one and not by any means dangerous. The horse, of course, will have to be cast, rolled on back, then cut out tumor, but be sure to remove all unhealthy parts and he will heal up in ten days. This is the only remedy for such an ailment.

The forces and inhabitants at Tabriz, Persia, are in a terrible dilemma as the enemy commands all the avenues whereby food can be gotten to the city, which means that thousands will die of starvation if they do not capitulate and on the other hand surrender will mean that thousands will be massacred by the heartless invaders.

## Binds More Sheaves with Less Twine



Plymouth Binder Twine is made right. It works smoothly, ties properly, and the last of the ball feeds as freely as the first. No knots or breaks. Fifty per cent stronger than the strain of any machine actually requires.

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is used more than any other twine because it is known to be the best. Made by the oldest cordage establishment in the United States, where quality and honesty are spun into every ball of twine. Farmers who insist on seeing the wheat-sheaf tag on every ball of twine save money and avoid harvest delays. Get Plymouth Twine of the local dealer.

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BERKSHIRES. Three brood sows, grand-daughters of the great Premier Longfellow, also a few choice gilts at bargain prices. SHINEVALE FARM, Pt. Austin, Mich.

## BREEDERS' DIRECTORY.

## CATTLE.

## ABERDEEN-ANGUS.

Herd headed by UNDULATA BLACKBIRD ITO 83836, one of the best sons of PRINCE ITO 50006, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907 and 1908. Herd consists of Erics, Blackbirds, Frides, etc.

WOODCOTE STOCK FARM, Ionia, Mich.

ABERDEEN ANGUS bull, 1 Polled Durham herd bull closely related to World's Champion, and one yearling bull left. Freight and car fare to buyers CLOVER BLOSSOM FARM, Port Austin, Mich.

GUERNSEYS—BULL CALVES from tuberculin tested cows. ALLAN KELSEY, Lakeview, Mich.

FOR SALE—Two Guernsey bulls aged 5 and 2 yrs; son and grandson of Prince Rosendale. Prices right. M. L. Dean, Napoleon, Mich.

HOLSTEINS—A fine registered bull of excellent breeding and individuality, 17 mos. old for \$100. J. M. SHORMAN, Fowlerville, Mich.

Holstein-Friesians. HICKORY GROVE STOCK FARM, Owen Taft, Proprietor, R. 1, Oak Grove, Liv. Co., Michigan. Bell phone.

HOLSTEINFRIESIANS—A few fine bull calves and one Canary Mercedes Royal King. W. B. JONES, Oak Grove, R. No. 3, Mich.

BOARDMAN STOCK FARM, Holstein Cattle. JACKSON, MICH.

Has more Imported Holstein-Friesian Cows than any farm in the Middle West. Registered BULL CALVES of the most fashionable breeding, 30 fine, registered, Duroc Jersey sows due to farrow soon.

HOLSTEINS—I will sell "Aggie Cornucopia Platterje Dekol" No. 57254, Born Mar 20, 1908. Unquestionably the best bred yearling bull in the state. 3 Bull calves 2 to 4 mo. old. A. R. O. Dams. Write at once if in need of something good. L. E. CONNELL, Fayette, Ohio.

HEREFORDS:—Both sexes and all ages for sale. Also Poland-China hogs. R. E. ALLEN, Paw Paw, Mich.

## BLACK MEADOW FARM

## JERSEYS

## ROYAL OAK MICH.

Northern Crown Jerseys. ROYCROFT FARM, Sidnaw, Mich.

JERSEY Bull Calf born Feb. 9 '08, first calf of a heifer whose dam gave 7314 lbs. of milk in '08. Fire's Dam's record 10,060 lbs. in 10 1/2 months. THE MURRAY-WATERMAN CO., Ann Arbor, Mich.

Lillie Farmstead Jerseys. We have some splendid bull calves for sale from one to six months old. They are from cows with records of 300 to 425 pounds of butter last year. Write for description and prices.

COLON C. LILLIE, Coopersville, Mich.

St. Lambert Jerseys. 218 months, 21 year heifer whose dam gave 7314 lbs. of milk in '08. Fire's Dam's record 10,060 lbs. in 10 1/2 months. THE MURRAY-WATERMAN CO., Ann Arbor, Mich.

RED POLLED BULLS, bred from good milking sows. John Berner & Son, Grand Ledge, Michigan.

MARSTON FARM—JERSEY CATTLE. T. F. MARSTON, Bay City, Michigan.

CHOICE JERSEYS. Large St. Lamberts, Young stock of either sex for sale. CLARENCE BRISTOL, R. No. 2, Fenton, Mich.

SPECIAL Owing to conditions which make it necessary for the management to leave the State, the entire equipment of Francisco Farm must be sold. 30 Grand Shorthorn cows and heifers, mostly Young Phyllises, Young Marys and Lavinias with two or three Scotch crosses, and a high class herd of P. C. swine are in the offering. Come and see them and you will be surprised at the prices made. P. P. POPE, Mt. Pleasant, Mich.

## WOODLAND SHORTHORNS.

Let us quote you prices on some choice cows and heifers. We want to buy a good bull out of a heavy milking dam. Red preferred.

MEYER BROS., R. 7, Howell, Michigan.

## BULL CALF for sale

From "Dairy Shorthorns" with strong milk inheritance, kept in Dairy form for ages. Full milk records kept. Correspondence solicited. W. W. KNAPP, Watervliet, Mich.

## Pure Bates Shorthorns.

Polled Durhams. A. D. DeGarmo, Highland, Mich.

## RED POLLED CATTLE

—2 Bull calves, 6 weeks old at \$35.00 each. Young cows and heifers at \$50 to \$75. E. Brackett, Allegan, Michigan.

J. B. CROUSE STOCK FARM, HARTLAND, MICH. Have some choice cows and heifers at right prices.

SHEEP. ERDENHEIM FARM SHROPSHIRE EDWIN S. GEORGE, Owner. Rams and Ewes for Sale. WRITE FOR PRICES TO ROBERT GROVES, Shepherd, R. F. D. No. 3, Pontiac, Mich.

SHROPSHIRE HALL STOCK FARM. Will make special prices for thirty days, on ewes from 1 to 3 years old, all bred to imported Cooper, and Mansell rams to lamb in March and April, also on very choice ewe lambs, this is to make room for an importation that is going to arrive this spring.

L. S. DUNHAM & SONS, Concord, Michigan.

## GO INTO SHEEP RAISING

Buy of Michigan's Largest Breeder of good sheep. Romeyn C. Parsons, Grand Ledge, Mich.

RAMBOUILLET—Flock founded 1892 with 40 ewes selected from one hundred registered ewes of the best breeding possible. J. Q. A. COOK, Morrice, Mich.

## HOGS.

FOR SALE, 2,000 PIGS, 6 to 8 weeks old, at \$2.50 to \$3 each; any breed. Will ship by express and give your money's worth. UTILIZATION CO., Grand Rapids, Mich.

NORTHERN GROWN BERKSHIRES. ROYCROFT FARM, Sidnaw, Mich.

BERKSHIRES—Sows bred to Longfellow's Duke, and our new herd bred Prime Bacon 98611, a great son of the noted Lord Bacon, and of intense Masterpiece breeding. Guernseys, M. B. Tukeys, B. Fly, Rocks, Pekin Ducks, Hupp Farms, Birmingham, Mich. G. C. Hupp, Mgr.

FEW FALL GILTS bred for fall farrowing. Also choice lot of spring pigs bred by King Premier. A. A. PATTULLO, Deckerville, Mich.

BERKSHIRES—SPRING PIGS, sired by sons of Premier Longfellow and Masterpiece, the world's champions. C. D. WOODBURY, Lansing, Mich.

DAMS BROS. IMPROVED CHESTER WHITES, Litchfield, Mich. A won more premiums in '08 than any other herd in Michigan. Stock all ages for sale. Prize winning W. Orington, W. Leghorn and Buff Rock eggs, \$1 per 15. Shorthorn bulls & heifers.

CHESTER WHITES—A few choice young sows bred for April farrow. Also fall pigs either sex. Orders booked for June delivery. W. O. WILSON, Okemos, Mich.

CHESTER WHITES. Boars ready for service \$15.00; Gilts bred for fall farrow \$20.00; Spring pigs either sex. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich.

DUROC JERSEYS—Boars ready for service, sows for Spring farrow. Pigs at weaning shipped c. o. d. if desired. L. R. KUNEY, Adrian, Mich. Phone 131.

DUROC JERSEY SWINE, Shepherd Dogs. B. for 15. J. H. BANGHART, Lansing, Mich.

Duroc Jerseys—Nothing for sale at present. CAREY U. EDMONDS, Hastings, Mich.

DUROC Jersey of size and quality. 40 Boars ready for service. 50 sows at Farmers Prices. Satisfaction guaranteed. J. C. Barney, Coldwater, Mich.

O. I. C.'s Boars & sows all sold, I have a fine lot of young pigs that will soon be ready to ship. A. NEWMAN, Route No. 1, Marlette, Mich.



## GRANGE

Our Motto—"The Farmer is of more consequence than the farm, and should be first improved."

### THE GRANGE AND SOIL FERTILITY.—II.

Those who told me the following incidents will, I trust, pardon their repetition, since they exactly illustrate one feature of what I should like to impress upon every Grange.

In the evening of a busy Grange day, a resident woman and I were talking over the exercises of the day, when she remarked: "I am glad the Grange has come to us. Before it came my husband had grown very discouraged and was about to give up farming to try something else. But after the deputy visited us he changed, and now is full of enthusiasm in his plans for the farm and says nothing about leaving it." It chanced that I had visited the home neighborhood of this particular deputy not long before and it did not seem difficult to me to trace the source of the other man's reinforced interest in farming. The one had taken into his Grange work his own belief, from experience, in profitable agriculture, and so strong was it within him that the spirit of it was contagious. Again and again has a similar result been observed. The zealous, efficient Grange deputy, who has heart for farming, brims over with information and enthusiasm along its various branches and makes his every visitation a "school of agriculture."

Another woman told me of her Grange of 150 members, mostly of foreign birth, and many of them but recently come from lumbering into farming. She said, "I must tell you a little incident of our last meeting when we had a general discussion on 'Soil Fertility.' We are having a very backward spring and so many are down-hearted, ready to sell out and go to Alabama or other southern points, that during the discussion many were the complaints made by some. At the spur of the moment I thot about the many advantages we have here and I just told them to look at the bright side and not thru blue glasses; I told them some of the hardships out west, where a friend writes me from Idaho that she had seen the sun but twice during the winter, etc. You should have seen the change, as we had a good laugh. I next called on a man who had just moved in from Wisconsin and he gave a ringing talk for Michigan. Since then I have met some of the 'blue' farmers and they have kept up their spirits in spite of everything."

What have these two incidents to do with "Soil Fertility" in the Grange, do you ask? It seems to me that they have much to do in that they are the foundation of the whole matter. If a man lose heart in his business or undertaking, to what shall he anchor, upon what shall he build?

I have purposely chosen no problem of advanced soil physics or other agricultural mystery to point the question I wish to raise, which is, is every one of our Granges attempting to help its members to understand their own farms better and how to handle their soils more profitably, and hence more contentedly? Are the officers introducing farm topics, and leading their members in a progressively helpful consideration of them. Especially at this season of the year should the question of Soil Fertility, in one form or another, come in for something like study in every Grange. Helps are abundant, for our farm papers are teeming with that-provoking articles on the soil, its history, its properties, dangers and needs. Upon it rests the welfare of all. It is basic. It is not to be escaped. If, as the scientists and James J. Hill tell us, boys who are now in baby clothes will live to face soil bankruptcy, it is none too soon to urge that this great farmers' organization stand for something more than dilly-dallying with this question on its semi-monthly programs.

JENNIE BUELL.

### COMING EVENTS.

#### Pomona Meetings.

Antrim Co., with Ellsworth Grange, Wednesday and Thursday, May 19-20.  
Charlevoix Co., with South Arm Grange, Thursday, June 3.  
Lenawee Co., with Madison Grange, Thursday, June 3.  
Lapeer Co., with Burnside Grange, Thursday, June 3.  
Wayne Co., with Flat Rock Grange, Friday, June 4. Prof. R. S. Shaw, State Soeaker.

## FARMERS' CLUBS

Address all correspondence relative to the organization of new Clubs to Mrs. W. L. Cheney, Mason, Mich.

### Associational Motto.—

The skillful hand, with cultured mind, is the farmer's most valuable asset.

### Associational Sentiment.—

The farmer; he garners from the soil the primal wealth of nations.

### HOW THE LOCAL CLUBS ARE CONDUCTED.

(Continued from last week.)

Mr. Z. W. Carter, many times the delegate from the Odessa Farmers' Club, stated that the club which he represented was organized in 1889, and that he was a constitutional member of the organization. This club meets monthly and the host and hostess do all of the entertaining. The membership dues have always been 25 cents for each member, which amount is paid annually, and this has provided money in the treasury to meet all expenses of running the club. The membership fee, which includes the head and unmarried members of the family, is 50 cents. The meetings of this club are usually well attended, from 60 to 100 people gathering each month. The young people are largely interested in the programs. A program committee is appointed in November for the year, and subjects are chosen which will keep the members thinking along beneficial lines. It is the aim of the committee having this work in charge to select topics that seem certain to become important themes of consideration in farming communities in the future, in order that the members of the club may have the advantage of their early consideration and be the better able to meet the issues involved in an intelligent manner when called upon to do so. The interest in the Farmers' Club is second to no interest in this community.

Mr. Galusha, delegate from the Napoleon Farmers' Club, of Jackson Co., stated that his club has a membership of more than 100. As special features which help to maintain this good interest in club work a summer picnic and a club fair are held each year. As an evidence of the interest taken in the last named event by the club members he said that at the last club fair they had some judges who officiated in like capacity at the state fair, and who complimented the club and its fair by saying that, as far as it went, the exhibit surpassed that made in the same line at the state fair. The membership is so large that each member's turn to entertain comes once in about three years. The host and hostess do all the entertaining. The young people are active in club work. The annual dues are 50 cents for each family.

The delegate from the Concord Club, of Jackson Co., stated that the organization had a membership of over 60 members. The annual dues are 10 cents for each member. It is that desirable by some members of the club to increase the membership dues and make the fee suffice for all members of a family, and it is probable that an effort will be made in this direction in the not distant future. There is a good general interest taken in the work of the club and a good attendance at all times except in the hurry summer season when the farm work is pressing.

Mrs. Tubbs, delegate from the Webster Club, of Washtenaw Co., said that club holds eleven meetings during the year, and an effort is made to have one speaker at each meeting from outside the membership of the club. The programs are prepared by a committee. The same officers have been elected for many years. The club has a list of 40 members, and has lost but two of its charter members. Last year this club tried the experiment of making out a yearly program, largely literary in character, but the members did not like the plan.

The Burton Farmers' Club, of Shiawassee Co., was reported by its delegate to have a membership of from 16 to 20 families, the present list numbering 18. The annual dues in this club are 25 cents. A temperance meeting is held each year. The members feel that the organization is a profitable one to them, and believe that if farmers will not organize for their own mutual improvement and protection they should not grumble at conditions as they find them.

(Continued next week.)



# Amatite

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I've now covered every roof  
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**Second**—We use two layers of the best grade of wool felt to hold the pitch in place. This wool felt

gives tensile strength to the roofing, and is the best material known for that purpose.

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## THE DAIRY

CONDUCTED BY COLON C. LILLIE.

### MONTHLY ESTIMATES VS. ACTUAL DAILY WEIGHTS OF MILK.

As is well-known, the plan of the co-operative cow testing associations is to have each herd visited once each month. The man doing the testing weighs the night's milk and the morning's milk, then he estimates the monthly yield of milk from these weights. He estimates 15 days back and 15 days ahead. In other words, he multiplies this actual weight of one day by 30. Now the most of us would say at once, without giving the subject very careful consideration, that this would be a very crude estimate of the actual yield of the cow. In fact, you would say that we do not have sufficient data to make the estimates reliable at all. Yet the Danish government has considered this question very carefully and they believe that the estimated weight in this way is reliable. They give figures to show that it comes out very close to the actual annual yield of the cow. When Mr. Helmer Rabild was appointed, by the Dairy Division of the U. S. Department of Agriculture, to take charge of cow-testing work he was sent by his chief to Minnesota to examine the records which have been compiled by Prof. Hecker, of the Minnesota station. Prof. Hecker has records of the actual weight of milk, both morning and evening, of his herd for a number of years—the only records of this sort in existence in the United States. Mr. Rabild went over these records, year by year, taking the night's and morning's milk for one day in each month and estimating the total for the month, the way the cow tester does, and he found that it approximated very closely the actual total weight, there being only about 3 per cent difference. In the North Ottawa Cow Testing Association, Mr. John M. Park weighs the milk of each cow separately night and morning every day in the year. Last year his herd actually gave 100,078 lbs. of milk. A cow tester visited him one day in each month and estimated, as usual, and according to his figures they gave 100,477 lbs., a difference of 399 lbs., or 39-100 of 1 per cent difference.

### THE DAIRY CALF.

Do you study the dairy calf as much as you ought to? Do you appreciate that the dairy calf is going to make the future dairy cow and that her value as a dairy cow depends very much upon the care and attention that she is given when a calf. Don't you realize that you can spoil the future dairy cow by giving the dairy calf improper attention this spring? Of course, the dairy calves that were dropped last fall can be turned to pasture this spring and will not demand very much attention, providing they have a good pasture; but lots of people give the calves a great setback in turning them to pasture. Think of a calf that has been in a good box stall all winter and had a good liberal ration of skim-milk and some grain, and plenty of good clover hay and corn silage, every day. Think, I say, of this calf being turned from this box stall into a pasture, and being compelled to shift for itself. In the first place, it never saw any grass before. It doesn't know anything about it, and doesn't know how to eat grass. Of course, you say that the calf understands these things intuitively, that it's the nature of the calf. But you watch the calf when first turned out and you will find that it doesn't know enough to drink, and the poor thing will bawl for water until it learns to drink from the brook. And, when you look the matter over carefully, you will be compelled to admit that it is not a proper thing to turn the calf from the well bedded box stall directly into the pasture, even tho the weather has become warm and the feed abundant.

First, it should be turned into a small yard every day. This is a great change for a calf that has been in a box stall all winter. At first it doesn't know enough to go out of doors. Where there are a number, you can't get them out all at once and they should be left, with the door open, and allowed to gradually work their way out and become accustomed to it. They are getting an education every day and an education that is necessary for them to take care of themselves later on in the pasture. After they get so that they will go out into their exercise yard and back again, and

seem to understand things a little, they can be let into a small pasture, and here they will learn to eat a little grass and drink a little water from the brook or tref. Everything is new and they learn slowly. Of course, if you persist in turning them out in the back pasture, the poor things will live. They will get onto this way of living and will, after a while, recover from their astonishment at such an abrupt change and will get on, after a fashion. But you have lost considerable in allowing them to do all this so abruptly. If you will gradually work them out to the pasture, gradually take their winter ration away from them and gradually substitute the grass ration in its place, you will have better calves. They will do better during the summer, they will do better all winter, and they will do better all their lives and make more profitable dairy cows than they will if they are turned abruptly into the back pasture and made to shift for themselves, because under such conditions they will run down in spite of everything.

Then this calf pasture is liable to get short and should be looked after. The pasture should be large enough so that the grass will outgrow the calves at first. Then, later on, they will consume some of the grass which they could not consume in the early part of the season. If provision is not made in this respect, then in the middle of the summer your calf pasture will be short and your calves will suffer and will never develop into the productive dairy cows that they ought to and which they would have developed into had they had a liberal ration from the start and a continuous one.

### Why Pasturage for Calves Should Be Ample.

When the cow pasture gets short, the cows of course, being brot to the barn every night to be milked, can be easily fed an extra ration. But the calves are in the back pasture and it is very inconvenient and costs too much money to get them up, consequently we must have a larger calf pasture in proportion than the cow pasture, because it is something that we cannot look after well. It doesn't pay to have to carry an extra ration back into the calf pasture to feed them every day, consequently we must make provision for enough pasturage area so that we are sure there is abundant feed for them during the whole summer. If we don't do this we are going to have calves that are not properly developed. Improper development weakens the constitution and it means lessened production when they come to maturity and all that, and no dairyman can afford to have these conditions. It is easy enough to prevent this if we only make proper arrangements, if we only make proper plans and then execute these plans. If we don't do this we are going to get caught in the middle of the summer with no feed and no practical way of supplying it.

The calves should be looked after once a week and they ought to be salted once a week. Don't forget that the dairy calf needs an abundant supply of salt. You ought to look them all over, count them, and see that they are all right, at least once a week, even tho they are in the back pasture. You can afford to take a half a day right in harvest to go back and look things over and see that the fences are right and the calves are getting a proper amount of feed and water and salt.

Of course, soiling crops can be raised for the calves as well as for the cows. A man can arrange to have soiling crops grown close to the calf pasture so that they can be thrown over, but it is about all the extra labor that the farmer wants to do in the summer time to provide this extra feed for the cows.

Now, this policy applies to fall and winter calves that are old enough to go on pasture in the spring and does not apply to the late winter calves, nor the spring calves, for these calves should not go to pasture at all, in my judgment, during the first summer. It is better to keep them in box stalls in a good cool basement. Give them their milk regularly and teach them to eat grain. You might better cut the clover, draw it into the barn and feed them in the barn than to put these young calves out into the weather and make them depend upon pasture. In the first place, they are not old enough to enjoy grass very much, and they are not old enough to digest and assimilate it. They should have a different ration. They want their milk ration regularly and some grain ration in connection with it to balance the milk ration. A great many young calves, when they are turned out on grass refuse to drink milk and the farmer becomes dis-

# CLEVELAND CREAM SEPARATOR CO. Sued For Infringement of DE LAVAL Separator Patent Rights

THE DE LAVAL SEPARATOR COMPANY announces for the caution and information of all whom it may concern that continuing the prosecution of the numerous concerns violating its PATENT RIGHTS, it has now brought suit in the UNITED STATES CIRCUIT COURT against THE CLEVELAND CREAM SEPARATOR CO., of Cleveland, O., for infringement of LETTERS PATENT NO. 743,428, in the manufacture and sale of CREAM SEPARATORS covered by the claims of said letters patent.

This proceeding follows similar suits recently brought in the UNITED STATES CIRCUIT COURTS for infringement of this and other letters patent against the STANDARD, IOWA and PEERLESS Separator Companies, and others.

All concerns which handle or have handled such infringing separators made by one or another of the CLEVELAND, STANDARD, IOWA or PEERLESS Companies under any of the various names used by them are equally liable for such infringement, and a separate suit has already been brought against the WM. GALLOWAY CO., of Waterloo, Ia. for such reason.

Likewise is EVERY USER of any such infringing separator bought of any of these parties, or any one else, liable to the DE LAVAL COMPANY for all income or profit derived from the use thereof.

The caution is again repeated that there are still other concerns infringing this and other DE LAVAL owned patents who will be held accountable in due course.

## THE DE LAVAL SEPARATOR CO.

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## Which do you think won?

Not long ago two men, athletes, went into a contest to see which could stand erect and hold his arms stretched out full length at either side of his body for the longer time. One man had fed on steaks and chops, sausage, ham, roast beef, etc.; the other ate heartily, but confined himself to such foods as Quaker Oats, rice, macaroni, etc. Which do you think held out longer?

The first man lasted twenty-two minutes. The Quaker Oats-macaroni-rice chap concluded to stop after he had been a. it more than three hours.

There's more strength and economy in eating lots of Quaker Oats than most people imagine.

Every family should eat plentifully of Quaker Oats at least once every day; breakfast is the best time. It strengthens you for the day.

The regular size package sells for 10c; the big family size package costs 25c; the same package with a piece of fine china in it in addition to the Quaker Oats, costs 30c. Grocers sell all of these.

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Don't think of buying any cream separator until you get our new Free Catalog and investigate Cleveland Cream Separators which skim closest—are easiest to run—easiest to clean and are absolutely the most satisfactory separators you can use if you have 2 cows or more.



Ball Bearing  
Aluminum Skimming Bowl  
Guaranteed Absolutely Satisfactory

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Bearings are of hardest steel, which makes it the most durable.

Has aluminum skimming device, which makes the bowl sanitary and most durable. Is the most convenient machine, having a low milk reservoir. Has the greatest skimming efficiency of any separator. It is simple in construction, and has very few parts to handle. All bearings are self-adjusting, and never become loose. Is fully guaranteed. Practically no repairs on account of the hardened bearings, and few parts.

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and is the most easily and quickly cleaned Cream Separator on the market. No other manufacturer can offer such a simple, sanitary and satisfactory cream separator—a machine with a genuine aluminum skimming device that opens in every part just like the leaves of a book, and admits of thorough cleaning instantly—because

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couraged. He has lots to do, and he allows them to go without the milk ration. He thinks that because they refuse to eat a milk ration they do not need it. But the calf does not know just what it needs as well as it ought, and a young calf ought to have a milk ration until it is six months old anyway. If kept in the barn, in a well bedded box stall, calves relish their milk and concentrated grain ration twice a day just as well as they do in the winter time. They will do better, you will get better growth and you will have better cows than if they are turned to pasture when young. Keep them in the barn the first summer. Then, of course, the next spring they are in condition to go to pasture and make a good healthy, normal growth, and develop into the very best kind of animals, animals that will bring you in the greatest profit. If they are turned to grass too young they become stunted and scrawny, never are thrifty as they ought to be, become pot-bellied and make dairy cows that produce butter-fat for about 18c or 20c per lb. when they ought to produce it for from 10c to 12c per lb.

#### BEST GRAIN TO BUY FOR COWS.

I have a dairy of eight cows and have to buy grain for them. Would like to know what would be best to buy. I am feeding clover hay and shredded corn stalks.

I am contemplating putting up a silo and wish to know how large to build. I want to keep at least 15 cows. Otsego Co. G. B.

I think the best grain to buy to feed dairy cows when you are feeding them clover hay and shredded corn fodder for roughage is corn meal and oil meal, mixing half and half by weight. If you were feeding corn silage in place of the shredded corn fodder, then I would recommend cottonseed meal, because the protein is a little bit cheaper in cottonseed meal than it is in oil meal; but when feeding all dry feed I would feed oil meal in preference to cottonseed meal on account of the physiological effect upon the animal.

For a silo for feeding fifteen cows, I would not build it over 12 feet in diameter, and it would be full as well to have it only 10 feet in diameter, because you must feed enough from the surface each day to keep it fresh in order to have it in the best condition. You can, however, with the necessary young stock you will have in connection with 15 cows, get along quite nicely with a 12-foot silo. Then I would build it as high as need be to hold sufficient ensilage. The higher you build the silo the cheaper you get your capacity. I would not build it less than 30 feet, 35 feet would be better, and 40 would be better yet. If you did not want to fill it entirely full of ensilage every year it would not matter; then when there came a year that you wanted to keep more cows you could fill it full. If you do not feed all of the ensilage, it will keep all right until the next year. You get your capacity cheaper in a high silo than you can by building two silos.

#### BEST GRAIN RATION TO GO WITH PASTURE.

Please tell me whether it is practical to feed cows grain when on pasture, and if so, what kind of grain? I have been feeding ground corn-and-cob meal with oil meal.

Van Buren Co. A. J. SHIRLEY.

I don't believe you could get anything better to feed in connection with pasture than corn-and-cob meal, and cottonseed meal instead of oil meal. The oil meal is better, where you have no succulent food in the winter time, than the cottonseed, because the cottonseed meal is a little constipating. But now when you turn your cows out to pasture the succulent grass makes their bowels too loose for best results and a little cottonseed meal will tend to correct this. Consequently, it will be better to substitute cottonseed meal. Cottonseed meal tends to make a firm butter-fat, while oil meal has just the opposite effect. Grass butter is also apt to be of a softer texture than that made on dry feed and will not stand up as well in hot weather. Consequently, we get an improved condition in the butter if we feed a grain ration that tends to produce a hard fat, and cottonseed meal will do this. Cottonseed meal is not so good to feed in winter on this account because it makes a butter that is liable to crumble, but it's an excellent feed to correct this soft consistency of the fat produced by the grass in summer. So, taking all of these things into consideration, I do not see that you can get a better summer grain ration for dairy cows than corn-and-cob meal and cottonseed meal mixed together.

## HOW TO TEST A CREAM SEPARATOR

If any maker, agent or dealer wants to sell you a Cream Separator of any name, make or price, here's the way to test it:

RUN IT ALONGSIDE OF AN ECONOMY CHIEF FOR SIXTY DAYS—that's all. If the Economy Chief doesn't outskim, outrun and completely outclass the other machine in daily use on your farm, send it back and keep the other machine.

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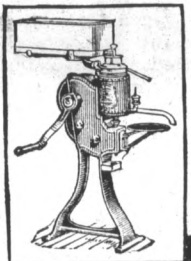
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# Disks 50 Times More Work



Washing 42 disks, and other bowl parts, from a disk filled "bucket bowl" machine. Other "bucket bowls" are about as bad.

Are you willing to wash and dry 50 to 100 times more tinware surface than you need to? If not, why not let "bucket bowl" cream separators alone and get a Sharples Tubular? Is thoroughly washing and carefully drying tinware so easy that you don't care how much you wash? Had you not rather wash a single piece, that has no more surface than the palm of a man's hand, than to wash 40 to 60 pieces that, together, have as much surface as a piece of carpet two yards long and a yard wide? That's a pretty big contrast for sure.



The disks in the full pan belong inside a "bucket bowl." The little piece in the other pan is all there is inside Sharples Dairy Tubular bowls.

But it shows truly the difference in the work of washing a common disk filled "bucket bowl" cream separator as compared to washing the light, sanitary, wear forever modern bowl used in Sharples Dairy Tubular Cream Separators. Look at the two dish pans and you'll see the point. Other "bucket bowl" separators are about as bad.

Considering the complication and weight of "bucket bowl" cream separators (and all

cream separators except the Tubular are the "bucket bowl" kind) don't you think you'll save a lot of work, wear and expense by letting the "bucket bowl" sort entirely alone and getting a Tubular?

It is not surprising that Tubular sales exceed those of most, if not all, other separators combined. "Bucket bowl" sales have been so reduced, by Tubular popularity, that the leading maker of disk machines (the self-styled "original" disk maker) has found it necessary to commence suits against a catalog house and others that have been making and selling cheap separators with disks like his for a number of years. Why? Because he has lost his grip—taken a back seat—is so out of date that he's scrapping for trade with the catalog house and other cheap concerns.

The Tubular is made in the world's greatest cream separator factory. Branch factories in Canada and Germany. It is the world's greatest cream separator. It will give you greatest satisfaction—greatest profits—greatest wear. Get Catalog No. 152.



All there is to the Dairy Tubular bowl. Washed easily in three minutes. A few thrusts with the brush does it.



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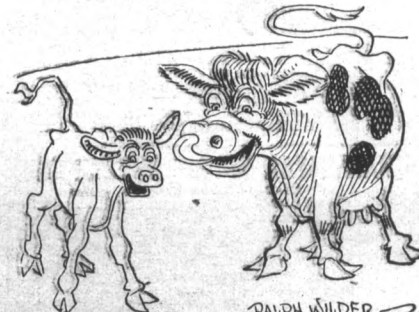
GALLOWAY LAUGHS.



OTHER MANUFACTURERS LAUGH.



FARMERS LAUGH.



RAIPAL WILDER

IT'S ENOUGH TO MAKE THE COWS LAUGH.

## Galloway Has The Laugh On De Laval

William Galloway laughs—  
The De Laval people make themselves ridiculous—  
All separator manufacturers are laughing—  
The Farmers are laughing—  
And it is enough to make even the cows that give the milk laugh.

*Wm. Galloway*  
President

### Here's the Joke

It's too good to keep. The whirlwind competition that the Wm. Galloway Co. put up and swept the country with on the new Galloway Bathed in Oil Cream Separator—sold on the Galloway fair and square plan direct to the farmers at the Galloway factory price, was too hot a pace for the DeLaval people to follow in a legitimate way.

DeLaval simply can't do it unless they sell direct the same way that Galloway does and save the Farmer three or four profits that they are now getting on their machine. In their blind endeavor to do something to stop Galloway's ever-growing business, they try to deceive separator buyers by putting out an advertisement that was so worded that it led people to believe that they had a suit against the Galloway Company for infringement on some of their patents when they had none, although it was cleverly worded in a way that would make people believe they had.

They even went so far as to post all their dealers to this effect. The Wm. Galloway Co. has evidence right now in their office of some of the methods they are pursuing. These methods may go all right in New York, but they do not go in Iowa, or with the farmers. When DeLaval got out that first ad they did not think that Galloway would do anything—but they ran up against a snag. Galloway has met just such people as this long ago. And so now since we sued them for their malicious advertising, in order to make the people believe that there really was something to it, they have at last come out and sued us. They evidently are in a frenzy of desperation and had to do something.

### You Can't Fool the People Or Down a Man When He's Right

We believe that we have the American people with us. William Galloway personally and the William Galloway Company can't be flim-flammed or bluffed by any concern, even if it has a billion dollars behind it. Neither can the American people. Let DeLaval come on with their "bluff" suits. Let them come on with their "bluff" ads. We are going right on selling the famous Galloway Bathed in Oil Cream Separators and saving farmers and dairymen from \$25.00 to \$50.00 on the price. We are going right on furnishing a \$25,000 bond to protect our customers on every machine. We are going right on giving our customers the most liberal selling plan and the lowest price for the highest quality machine sold in America today.

We are going right on with our advertising. We are going right on with our damage suit against the DeLaval people for \$250,000 damages. The die is cast. Take our 30-Day Free Trial Now—Freight Prepaid—Get our new big Separator Book. Find out all about the William Galloway Company and our separators. The weather is now warming up. The grass is getting green. It is time you had one of our latest down-to-the-minute, high quality, low priced Galloway machines in your dairy. 360 Days' Approval Test or Money Back with 6 per cent interest if not satisfactory.

And always remember that I stand back of you. Our entire capital and factories and my personal fortune stand back of every customer of the William Galloway Company. Anybody can start a law suit against anybody. But that doesn't mean anything unless they have a case. The DeLaval people know they haven't a case and after the "separator buying season" this year is over, you won't hear a yip about their "patents" or infringements. They have been trying to gobble up all the business for years and I keep prices high. The Galloway Company and the rest of us who sell direct have got the DeLaval people beaten to a frazzle.

We just wanted to let you know these FACTS and I would like to have you write me personally for my special proposition, low prices and big dandy separator catalog. Will you do it?

**WILLIAM GALLOWAY, President**  
**The William Galloway Co. 643 Galloway Station, Waterloo, Iowa**

Galloway is also the largest manufacturer in the world selling Manure Spreaders and Gasoline Engines direct to the Farmer.

### Here's the Law

The DeLaval Company seems to have found itself in a very deep hole. First, they published a "scare ad" trying to make people believe that we infringed Patent No. 892,999 and that they had sued us for that infringement. This was not true and they knew it, or ought to have known it.

Because of this advertisement, false, and, as we believed, malicious, and done solely to try to hurt our large trade, we began a suit against them for damages for \$250,000. Then they saw themselves facing a big judgment for damages, and in a vain endeavor to make good, began a bluff suit against us for alleged infringement of another patent, which we do not infringe at all. This patent our lawyers advise us is wholly without merit and can be defeated and we shall fight this suit to a finish. There are a number of patents much older than the one in question, which, in the opinion of our lawyers, make their claim wholly void.



**\$33.50**  
and up  
According  
to  
Capacity

Save  
**\$25.00**  
to  
**\$50.00**  
Cash



## ANSWER

This Ad and Get My Big FREE Book and Save \$50  
Buy direct from the biggest spreader factory in the world—My price has made it—Saves dealer's jobber and catalog house profit. No such price as I make on this high grade spreader has ever been made before in all spreader history. Here's the secret and reason: I make you a price on one based on a 25,000 quantity and pay the freight right to your station. You only pay for actual material, labor and one small profit, based on this enormous quantity on a

## GALLOWAY

Get my brand new proposition with proof—lowest price ever made on a first class spreader, with my agreement to pay you back your money after you try it 12 months if it's not a paying investment. How's that for a proposition? If I did not have best spreader I would not dare make such an offer. 20,000 farmers have stamped their O. K. on it. They all tried it 30 days free just like I ask you to try it—30 DAYS FREE. Five Sizes—Including New Complete Steel Gear Spreader—70-bu. Size. Drop me a postal, and say—"Galloway, send me your new proposition and Big Spreader BOOK FREE with low price—direct from your factory." Nobody can beat it. Freight Prepaid



**The best Advertising the Goodhue Windmill can have in any locality is a heavy wind storm**  
BECAUSE, although easy to erect, it is hard for the wind to down—it has a governor that works perfectly in all kinds of weather—the wheel has double arms of heavy channel steel giving more than double strength—it has a practically noiseless brake—it is erected on a tower guaranteed against CYCLONES AND TORNADOES—and because in every way

**Goodhue Windmills are Good Mills**

So sure are we of our ground, that, for a nominal fee, we will insure the complete outfit, mill and tower, for five years, against anything and everything. Write today for free wind mill book. **APPLETON MFG. CO.** 20 Fargo Street, Batavia, Ill., U. S. A.

## Harrow and Plow Both At Once

The Naylor Plow-Harrow fits any gang or sulky; saves all the work of harrowing, pulverizing the fresh soil as it leaves the plow. "I have used the Naylor Plow-Harrow Attachment where the ground is very wet and covered with corn stalks. It does perfect work without additional draft. I would not have taken off my farm for twice what it cost if I could not get another." Ernest Lebeque, Pierron, Ill.

It is worth just as much to every farmer. Prevents evaporation, makes seed start quick and grow strong. Write for free catalog and introductory discount offer.

**NAYLOR MFG. CO.** 64 Spring Avenue, La Grange, Illinois

## It Never Slips!

One Man Operates It. Stretches all kinds of wire to the last post. The harder you pull the tighter it grips. Smooth jaws, cannot cut or injure the wire. On and off like a pair of tongs. By express prepaid, \$1.00.

**NEVER SLIP STAPLE PULLER** Ours is the BEST **STAPLE PULLER** on earth. Drive hook under staple, lift lightly and out it comes. By mail, 25c. Both tools by expr. prepaid, \$1.25. Never Slip Wire Stretcher Co., West Farmington, Ohio

## Stickney Gasoline Engines ARE THE BEST

**Why?** Because of the outside igniter, modern open cooling system, straight-line valve motion and ball-bearing governor. Thousands in successful operation because of our years of experience in building the best. Seven sizes: 1½ to 16 H.P. Send for our Free Catalog and our Catalogue telling fifty-seven reasons why **Stickney Engines are the Best.** Agents everywhere sell them.

**Charles A. Stickney Company** MAIN OFFICE & FACTORY ST. PAUL, MINN.

## The CLIPPER

There are three things that destroy your lawns, Dan delions, Buck Plantain and Crab Grass. In one season the Clipper will drive them all out.

**Clipper Lawn Mower Co.,** Dixon, Ill.

## FIX YOUR ROOF

**5c Per Square.**—We will guarantee to put any old leaky, worn-out, rusty, tin, iron, steel, paper, felt or shingle roof in perfect condition, and keep it in perfect condition for 5c per square per year.

**Roof-Fix** The Perfect Roof Preserver, makes old, worn-out roofs new. Satisfaction guaranteed or money refunded. Our free roofing book tells all about it. Write for it today. The Anderson Manufacturing Co., Dept. 30, Elyria, Ohio

## Hurry-Up Hay Making

Two modern implements for fast, clean work.

**Clean Sweep Loader** Goes from swath to windrow work, or vice versa, without change in adjustment. Divides a swath—adjustable Elevating Carrier. Loader detached without men getting off load. It picks up the hay and lifts it onto the wagon without threshing or pounding. Hay is not broken or wadded and rolled. It gets all the hay, whether thick or thin and whether the meadow is rolling and uneven or level, but it leaves the manure and trash. Load with the Clean-Sweep Cylinder Loader one day, and you'll never think of going back to the kicking, pounding rake and drag loaders again.

**Sandwich Side Delivery Rake** best of all rakes. Really tender and rake combined, and better than either alone. Rakes clean and needs no dumping. It handles hay gently. Doesn't rope the hay—rides comfortably. Get our free catalog for proofs—do it NOW.

**SANDWICH MFG. CO.**

140 Main St.

Sandwich, Ill.



Hay Tedder and Rake

## The Loudon Way



One man with a **Louden Litter Carrier** on Loudon overhead steel track system can clean the barns in half the time that two men would take without it. That's Loudon economy. On every up-to-date farm—your farm—the **Louden Litter Carrier** and steel track system will earn its cost many times a year. Track can be bracketed to barn wall—out one door—in at other, and in this way no switch is needed. Manure loaded direct on wagon or spreader—its full fertilizing value thus saved.

**Louden Litter Carriers** are made of heavy galvanized steel—wear for years; have improved worm gear—1 pound on chain lifts 40 pounds in box; box stands at any elevation—raised or lowered any distance up to 25 feet; have many special advantages not found in other makes. Send today for valuable free book on manure uses, and catalog of hay and litter carriers, sanitary steel stalls, cow stanchions, etc., for modern barns.

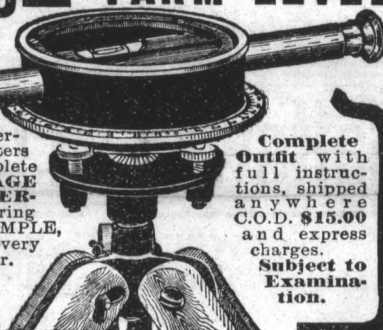
**Louden Machinery Co.,** 603 Broadway, Fairfield, Iowa

## BOSTROM'S \$15.00 FARM LEVEL

With Magnifying Glasses In the Telescope

enables you to read the Target at a distance of over 400 yards, therefore the problem of a **FARM LEVEL** with TELESCOPE at moderate cost has at last been solved. Voluntary letters from every State in the Union show the complete satisfaction it gives for all kinds of **DRAINAGE WORK, IRRIGATION, DITCHING, TERRACING** and every sort of farm work requiring a level. **GUARANTEED** to be absolutely SIMPLE, ACCURATE, DURABLE and dependable in every respect. NOW is the time to send in your order.

**BOSTROM-BRADY MFG. CO.,** 148 Madison Ave., Atlanta, Ga.



Complete Outfit with full instructions, shipped anywhere C.O.D. \$15.00 and express charges. Subject to Examination.

## Elkhart Buggies

are the best made, best grade and easiest riding buggies on earth for the money.

**FOR THIRTY-SIX YEARS**

we have been selling direct and are **The Largest Manufacturers in the World**

selling to the consumer exclusively.

We ship for examination and approval, guaranteeing safe delivery, and also to save you money. If you are not satisfied as to style, quality and price you are nothing out.

May We Send You Our Large Catalogue?

**Elkhart Carriage & Harness Mfg. Co.** Elkhart, Indiana



Price \$56.00 With Twin Auto Seat

## SEA GREEN & PURPLE SLATE

**SEA GREEN AND PURPLE SLATE** is nature's own product—not man made. Quarried from solid rock—split into convenient form for laying, and then in its natural state ready for the roof. **SOLID ROCK CAN NOT WEAR OUT**—It can't burn, rust, warp, crack, tear, or decay. That's why Sea Green or Purple Slate Roofs never wear out and never require painting and repairing like all other roofing. Sea Green & Purple Slate Roofs are suitable for any building, new or old. Give perfect protection. Reduce insurance rates because spark and fire-proof. Afford clean cistern water. Not affected by heat or cold. First cost—only a trifle more than short lived roofing. Settle your roof question for all time. Don't spend more money for poor roofing. Write to us for our free book "ROOFS"—it will save you money. Give name of your local roofer. Write today.

**AMERICAN SEA GREEN SLATE CO.,** Box 7, Granville, N. Y.

**ROOFS NEVER WEAR OUT**

## WHITMAN'S NEW MODEL STEEL BEAUTY HAY PRESS

With or without self-feed positive pull back without spring. NEVER FAILS



A complete line of power balers, hay paper, wool, shavings, cotton hull and compress presses. Our success with this machine has been simply marvelous. Thorough tests convince us that it is absolutely correct in principle. It is built entirely of steel. Has low bridge for horses to walk over, and no pull of team in crossing. Has large feed opening and long bale chamber. Warranted in every particular. We also make a full line of balers. For full information address the manufacturers.

**THE WHITMAN AGRICULTURAL COMPANY, 6905 S. Broadway, St. Louis, Mo.**

Please mention the Michigan Farmer when you are writing to advertisers and you will do us a favor.

## The Saginaw Silo Makes Dairymen Rich

One successful dairyman says: "If it were impossible to get another, I wouldn't sell my 'Saginaw' for 5 times what it cost." Saginaw Silos cut your feed bills in half, and double your dairy profits. Dairymen who are familiar with all Silos say the Saginaw is built better and gives better satisfaction than any other.

It puts more and better milk in your pails, at an astonishingly low figure. In short, the Saginaw Silo is economical, practical, convenient and simple.

**Pays for Itself the First Year**

What you save in feed—what you gain in milk and butter—actually makes your Saginaw Silo pay back its cost the first year. Write us for our Free Book, The Modern Way of Saving Money on the Farm. In it experts tell you all about Silage. Get this book today and learn all about our liberal proposition to you. If we did not make more Silos than anybody else we could not make such an offer. Write for the book—judge our offer for yourself.

**FARMERS HANDY WAGON COMPANY** Box 64, Saginaw, Des Moines, Minneapolis

## Freight Paid

as far as the Ohio and Mississippi rivers on every shipment of

**EMPIRE "Big Wire" Fence**

Factory price on the only fence you can afford to buy. Full strength all over—wires all same size—No. 9. The biggest wires ever used in fencing and galvanized till they can't rust.

**We'll Send You Sample**

to show the steel, the galvanizing, the size. It will make you an Empire Fence man, sure. No charge. Write and let us tell you all about the fence that lasts.

**Bond Steel Post Co., Adrian, Mich.**



## BROWN FENCE

The heaviest, strongest, best galvanized fence made. A more substantial, stock-resisting, time-defying fence was never stapled to posts. Free samples with catalog showing 150 styles at prices from 15c per rod up and full particulars—free on request.

**WE PAY FREIGHT** We will send you a sample of our all No. 9 wire fence. You can test it any way you like. File it and see how thick the galvanizing. The "BROWN" will commend itself to you. It's the best. Free Catalog. **The BROWN Fence & Wire Co.** Dept. 49 Cleveland, Ohio. **FREE**

## LEVELAND

Keep YOUR stock where it belongs. Protect your land from your NEIGHBORS' stock. A **CLEVELAND WIRE FENCE** WILL DO IT FOR YOU. Easy to erect. Always tight—our spring in every LATERAL WIRE makes it so, despite climatic changes. Made in all sizes, any heights, from Special High Grade Hard Steel EXTRA HEAVY TOP WIRE and CROSS BARS. Requires no repairs. Steel Farm and Ornamental Gates of all styles and sizes. Write for FREE CATALOG and SAMPLES.

**CLEVELAND FENCE & WIRE CO.** Dept. B Cleveland, Ohio

**WIRE FENCE**

## "The Fence That Lasts Forever!" CHEAPER THAN WOOD



Ornament your front yard by installing a beautiful Iron Fence. Our Iron Fence has Style, Finish and Durability, and in cost we compete with the World. 100 Choice Designs. Address Dept. D, for prices. **CINCINNATI IRON FENCE CO.,** (Incorporated) FREE Catalogue. CINCINNATI, OHIO. AGENTS WANTED in every town. EASY TO SELL.

## ORNAMENTAL WIRE AND STEEL FENCE

Cheaper than wood, combining strength and art. For lawns, churches, cemeteries. Send for FREE CATALOG. Address **The Ward Fence Co.** Box 677 Decatur, Ind.