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## FARM NOTES.

### A Short, Versus a Long Rotation.

The writer lives in the eastern part of Antrim county. In this locality a good many potatoes are grown. Potatoes are a good money crop, and we would like to know what crops to grow in the rotation with them. We find that potatoes do best on a clover sod, and would like to follow them with corn by keeping the ground well cultivated and free from weeds during the growth of the potato crop and using a disk cultivator and spring tooth in fitting the land for corn the following year so as to leave the old sod at the bottom of the furrow where the corn roots will grow down into it. This corn ground would be plowed for oats or buckwheat the following spring. We find that the clover seeding catches much better with the buckwheat than with the oats, and buckwheat generally yields as well or better than oats. We would like to know if buckwheat takes as much potash from the soil as oats would? Corn and oats are two crops we need for our own use, but we would sell the buckwheat and buy our oats. Would the proposed rotation be too long for this kind of land? We are of the opinion that the three crops might be grown between the time of plowing up the clover and seeding down again if the rotation could be such that no two crops in the rotation would draw too heavily upon the same properties of the soil. We know that potatoes require a great deal of potash, and we are of the opinion that oats do also, and would like to know what The Farmer has to say about this and what suggestions it has to make with regard to a crop rotation with potatoes the cash crop on sandy land.

Antrim Co.

SUBSCRIBER.

In planning this crop rotation, subscriber has taken into consideration only the plant food requirements of the crops mentioned, and wisely seeks to avoid drawing too heavily of the same elements of fertility in succeeding years, but there is another point which is vital to the growing of maximum crops which he appears to have overlooked. While it is important that the plant foods, and particularly the three which are most often mentioned and considered of the most importance in the economy of the plants, should be present in an abundant and available form, yet there is another requirement which is often more pressing, especially upon a sandy soil, and that is the presence of an abundant and available supply of soil moisture. The elements of plant food which may be lacking can be supplied in an artificial way if necessary, but in any except irrigated regions the latter essential can be assured only by a proper husbanding of the natural supply, hence this is a factor of soil fertility which should be considered in connection with the crop rotation quite as much as that of available plant food. It is almost the unanimous opinion of soil students, that the mechanical condition of a soil is quite as important, in its relation to soil fertility as is its content of actual plant food; indeed, some of these students contend that there is sufficient plant food in the average soil to grow maximum crops almost indefinitely if they are kept in proper mechanical condition and properly tilled to make the plant food which they contain available for the crops grown on them. Now the most important factor in a good mechanical condition of any soil is its content of humus. The function of this decaying

vegetable matter is somewhat different in the different soils. In the heavy soil it holds the fine particles apart and permits of the more rapid penetration and percolation of water, since it quite resembles a sponge in its ability to hold or to permit the passage of water. Thus it aids in permitting the drainage of the surface soil in wet seasons. In a sandy soil, its functions are quite different. It fills up the interstices between the larger soil particles, thus enabling it to retain a much larger percentage of soil moisture, which is delivered up to the crop as needed thru the action of capillary attraction, and absorbs and holds available plant food, delivering it to the plants as needed with the soil moisture. It is particularly for this reason that the short rotation, in which clover occurs every third year, is best for sandy land, as it keeps it in the best possible mechanical condition thru the addition of humus as well as actual fertility to the soil each time the clover sod is plowed down.

For these reasons the writer would prefer a three-year rotation on this land, planting both corn and potatoes on a clover sod, using as much land for corn as the manure made on the farm would cover, provided that much is needed for feed, and supplementing the mineral elements of fertility in the land intended for potatoes by a liberal application of commercial fertilizer. Then sow the land in potatoes to oats the following spring without plowing, as clover seeding will generally succeed better in oats after po-

tatoes than after corn, at least this is the writer's experience. The corn ground can be sown to buckwheat if preferred and seeded to clover. In this way better average crops of both potatoes and corn should be grown per acre than under the plan proposed in the above inquiry, and a third of the farm would be in grass each year, providing an abundance of hay and pasture. In the writer's opinion the fertility of the soil would show a marked improvement under this system of crop rotation within a few years, as the supply of humus could be kept up and supplementary plant food would be applied each time the land was plowed, and for a period of ten years he is confident that the net profits from the farm would be larger than would be the case with the longer rotation in which a larger area

of cultivated crops would be grown, so the inquirer would be the gainer in two ways—an increased net profit and an increase in the value of his land as measured by its producing power. Maximum yields on a limited area are far more profitable in the long run than smaller yields over a larger area, since the relative cost of production is less, hence the wisdom of planning the crop rotation so as to keep the soil in the best possible mechanical condition, as well as high in its content of available plant food.

In the rotation described in this inquiry, some benefit would be derived from the sowing of a catch crop in the corn and plowing it down for buckwheat the following spring. Unfortunately we have no legume suited to this use, but a crop of rye so handled would add some humus to the soil, and provide a covering over winter as well as prevent a loss of plant food from leaching and washing of the soil, but it would add nothing in the way of actual plant food which the soil does not already contain.

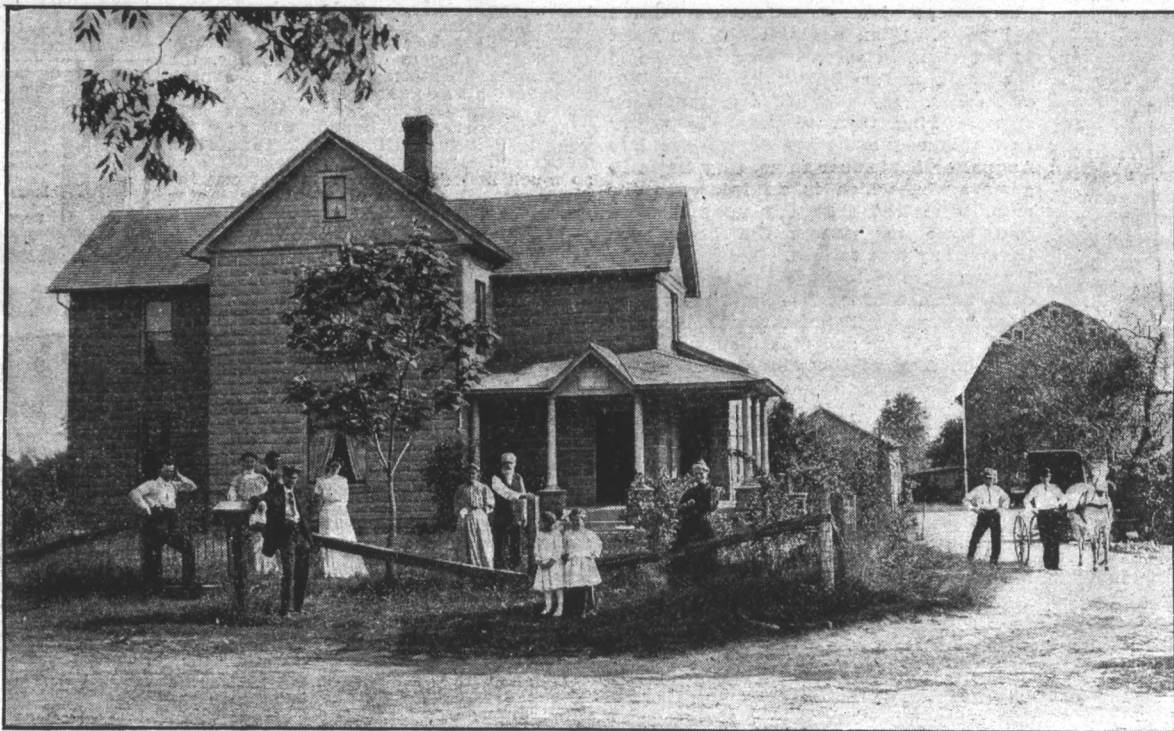
### Fertilizing Potatoes—Cutworms.

Will you kindly give me some advice on the following points: First, I wish to experiment with a potato fertilizer. I propose to apply a fertilizer consisting of nitrogen, 4 per cent; av. phos. acid, 6 per cent; potash, 9 per cent; about 800 lbs. per acre. Intend sowing broadcast and harrowing into soil a week or two before planting potatoes. My soil is a gravelly loam. Is my plan correct? Second, I desire to use kainit as a preventive against cut-worm in corn. Would it be all right to drop it on the hill after planting corn and then drag the ground?

to determine accurately just what fertilizers give the best results, unless perhaps he may be using more nitrogen than would be necessary if the potatoes are planted on a clover sod. However, this formula compares very closely with that which has given the most economical results at the Pennsylvania station, and also with that which is in general use on the potato soils of Long Island and New Jersey. But this is a question in which the individual judgment of the grower must be exercised. Last year the writer used a formula containing 2 per cent nitrogen, 8 per cent of phosphoric acid and 10 per cent of potash. This year he is using only half the above quantity of nitrogen because of the fact that the crop will be planted on a clover sod, and only about half the potash on account of the fact that the field was given a liberal dressing of potash the last time it was cropped. Doubtless the readers of The Farmer would be interested in knowing the outcome of this experiment, particularly if the subscriber keeps an accurate check on the results by leaving an area for comparison on which no fertilizer is used.

Touching the use of kainit for the protection of corn from cutworms, the writer cannot advise intelligently, having never tried it and having at hand no conclusive data on the subject. However, this should be a good season to try it out, as the cutworms are unusually plentiful and are reported as doing a great deal of damage to the early planted corn in many sections.

Only this morning the writer was talking with a farmer who planted his corn about the middle of May, drilling in a liberal amount of seed because fearful of their ravages, but they have damaged the crop to an extent which he thinks will make it necessary to refit and replant the field. The outcome of this experiment will also be welcome information to Michigan corn growers. The amount and method of applying would appear, in the writer's judgment, to be all right. A simple remedy of this kind, which in itself will be something of a benefit to the soil and to the corn crop growing upon it, is certainly worthy of a trial. Kainit is sometimes recommended as a repellent for insects that work on the tender shoots of young plants above the surface of the ground, but a cutworm must get his food within



Concrete Block House—Home of R. L. Nichols, Hillsdale County, Mich.

Would a tablespoonful to hill be right amount of Kainit to apply.

Oakland Co.

SUBSCRIBER.

As before noted in these columns, it is impossible to tell, without putting the question directly to the soil, what formula of commercial fertilizer is best for any crop on any soil. But this subscriber has shown wisdom in his determination to test the proposition out with a liberal application on the potato crop. Experience has shown everywhere it has been tried, that comparatively liberal applications of fertilizer will give a maximum profit in the potato crop. A comparison of the results secured at different experiment stations would also seem to show that this subscriber has chosen his formula for this kind of soil as wisely as would be possible without experimenting

a limited area, and the chance of keeping him away from the corn by this means would not seem very promising, yet the plan is worthy of a careful trial.

### Laying Tile in Muck Land.

Can muck land be successfully tilled, having sufficient outlet? When should it be plowed, and what crop first grown? Branch Co.

A. E.

Tile can be laid in muck land so the drains will work well for years, by having the ditches perfectly true to grade and laying the tile on boards so as to keep them from settling unevenly. The trouble with tile drains in muck land is that the soil is so largely made up of vegetable matter that it settles rapidly during the inevitable process of decay which is constantly taking place. For this reason the outlet should be sufficiently low so as to



provide for some settling of the tile at this point without submerging the mouth of the tile. The use of the board in the bottom of the ditches will prevent to a large degree the uneven settling of the muck, but unless it is possible to get a good fall, the drain is likely to settle a little unevenly and in time this may interfere with the proper working of the drain, but this will not occur anywhere nearly as soon if this plan is adopted as if the tile is laid in the soft muck, and if the muck is of an even depth below the drain it may work well indefinitely.

The land may be plowed at any time when it is dry enough, but probably the best time is in the spring when the grass may be burned off and leave nothing in the way. However, after harvest is a good time, if the grass can be mowed and removed. Buckwheat is a good crop with which to subdue a muck soil, but if it is plowed in the fall so that a good seed bed can be prepared it can be used for almost any spring crop, provided a little mineral fertilizer is used so as to balance up the plant food content of the soil.

#### POTATOES FOR THE GENERAL FARMER.

Altho we have never grown potatoes as a farm crop we have always planted from one to two acres of them each year so we could always have enough for home use and if the season was at all favorable, some to spare. In growing this small acreage we have attempted to give them as good care as most large growers. For many years we have treated the seed each season with corrosive sublimate for the scab and find that the tubers are nearly free of this fungus. The labor of this operation is insignificant. Simply put the potatoes in a barrel and cover with a solution of one ounce of corrosive sublimate to seven gallons of water, letting them remain in the solution for one and one-half hours. Then draw off the solution and put into another barrel, or leave in pails until the potatoes are poured from the barrel, when it can be turned back and more potatoes put in. After soaking the tubers should be handled in crates or baskets that have not recently held scabby potatoes, or have been subjected to the same treatment as the seed. Be careful that nothing eats the treated seed, or drinks the solution, as it is deadly poison. This season we are soaking a part of the seed in formalin instead of corrosive sublimate and if results are as good will use this entirely hereafter as it is not poisonous. I believe the formula is  $\frac{1}{2}$  pint of commercial formalin to 15 gallons water, the seed being left in two hours.

We controlled the bugs in every manner, from hand-picking thru spraying with an "atomizer" sprayer, applying plaster and paris green when the dew is on, to spraying with a barrel sprayer. When the Colorado beetle gets to work we must drop everything and get busy or we will have few potatoes. It has bothered us to control the bugs on some seasons with lime and Paris green without burning the foliage, but we have better success with arsenate of lead, as we can apply more poison without injury to the leaves.

On several seasons we have sprayed with Bordeaux mixture for the blight, but we happened to strike the seasons when it was not very prevalent, and got but slight results, but another season when we neglected to spray for the blight it nearly ruined the crop. In view of the added vigor the spray gives the plant and the insurance against the blight, I believe anyone with even a small patch cannot afford to neglect this spraying. The beetles are not often troublesome in this section on fields planted after the tenth of June, and the bulk of the crop is planted after this time.

When possible, we like to plant in hills about 30 inches apart, both ways so we can avoid much hand labor. In a small way these rows can be cultivated once in a row with a fine tooth cultivator, after they are well up. Previous to this the ground is kept clean with the spike tooth harrow.

We plant with a hand potato planter, and dig with a fork. These tools answer very well for the grower with but a few acres. For several years we have selected seed by the hill method while digging, taking only those hills that have a certain number of good potatoes to the hill and no poor ones. I believe the hill selection theory is correct, but it takes a number of years to demonstrate it. If we accept the testimony of such grow-

ers as Mr. Tyler, of St. Joseph county, we find a gradual increase in yield and uniformity thru a series of years, which is apparently due, at least in part, to this method of seed selection.

For several years we have observed the potato crop and market in this vicinity, and have talked with growers in potato localities, and believe the crop will often work well in the farm rotation. This season we are chancing eight acres, and if we can handle them satisfactorily in connection with fruit and farm crops, may purchase more approved potato tools and make them a regular factor in the rotation.

Calhoun Co.

S. B. HARTMAN.

#### LILLIE FARMSTEAD NOTES.

On the afternoon of Decoration Day we had one of the heaviest showers of rain that I ever experienced and during the night of the same day another extremely heavy shower. This rain was so heavy that it simply put us out of business. We have not been able to do a thing and at the present writing, June 7th, I haven't a kernel of corn planted and we have 50 acres of ground to put in.

I might have had 20 acres or more planted but I was extremely afraid of another dry season and I wanted to get the balance of the corn ground plowed so that if we did have a shower, we could save the rain. Last year a great deal of our late planted corn for ensilage did not come up at all because it got so dry and the seed would not germinate. I did not want to make the same mistake again, so I did not fit the fall plowed ground but kept on plowing and partially fitting, trying to save all the moisture. As it turned out, we would have had moisture enough, of course, but we did not know this. Ordinarily, we would say that it is too late to plant corn, but I shall plant the whole 50 acres to corn just the same. The ground is now all plowed and partially fitted and if the rain will only hold off a few days, we can put it all in in a short time. It is certainly early enough yet for ensilage corn, but the corn that we wanted to mature and husk may be caught with an early frost. With such falls, however, as we have had for the last three or four years, there is still time for this corn to mature, and I shall certainly take the risk.

My beets are as yet not planted. I did not calculate to put them in very early because I wanted to work the ground over three or four times and destroy that many crops of weeds before we planted the beets. Then again, I did not want to put them in so early that they would practically mature before the dry weather of August. My experience is that they stop growing then if they are pretty well matured and then if we get late August or September rains, they begin to grow again, which is an injury to the crop. The leaves all dry up and when you come to harvest the beets, you haven't any tops to feed. One reason why I grow beets is to have the tops to feed cows in place of ensilage, and my theory is that if you will plant the beets about the first of June and give them good cultivation, they will remain green thru the August drouth and you will have green fresh tops to feed when you harvest them. You will get just as much sugar as tho they were planted earlier. Besides this, by cultivating the ground occasionally, you will destroy weeds so that it will be less expensive to handle the crop afterward. This has been my experience with late sowed beets.

Owing to the pressure of work and the untimely weather, we haven't been able as yet to get in the alfalfa. I intended to put this in earlier, but now will have to resort to midsummer seeding. Many who are expert in alfalfa culture claim that midsummer is the best time to seed alfalfa anyway, so I am not discouraged about this. As a matter of fact, I am not discouraged about any of the crops because the season is extremely late, and I believe that the great law of nature is compensation. If you have a late spring, you have a late fall. If you have too much rain at one season of the year, you don't have enough at another. The only way I know is to go on and use your own judgment as best you can, carry out your plans as fully as possible, take your chance and abide by the results. I never saw a season yet, if the farmer did that, but he got fairly good crops.

There are some encouraging things. Everything bids fair for a splendid hay crop. The wheat has come on wonderfully and this cool weather looks as if it might be the making of the oat crop. I am not sorry now that I stuck to it and put in all the oats I intended to at first. The

oats and peas are thriving, too, while last year the oats and peas were practically a failure.

COLON C. LILLIE.

#### DOES THE MANURE SPREADER PAY?

This is a question that nearly every farmer in every locality is asking himself. Will it pay me to own a spreader? I have used one for nearly four years and would not be without one if I had only 100 loads to apply to our soil each year. I have drawn about 1,200 loads with my machine and at 10 cents a load for hauling and spreading you can readily see how quickly a man can make a spreader pay for itself in a short time and not saying anything about the evenness of the distribution and the great amount of hard labor it saves.

A man with a machine can do his hauling alone and there is a saving of at least \$1.50 per day which a farmer is obliged to pay hauling the old way if he wants to get his work done in good season. Another good feature about a spreader is, you can put your manure on any place you desire to. You can top dress lightly or you can put on a heavy, evenly distributed coat to plow under, which is impossible to do by hand and in one-half the time in which it is done in the old way.

Taking into consideration the labor saving, the evenness of distribution and the saving of time and manure, I think a spreader is one of the best tools for a farmer to buy.

Hillsdale Co.

C. C. D.

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#### How Shall I Entertain the Folks?

It is often hard for the country hostess to plan for the entertainment of her company, particularly when the folks come unawares. Naturally, there are lots of things to talk about. But after a while conversation lags. And then somebody thinks, "If we only had some music!" Unfortunately, many homes do not have musical instruments, and many more have no one to play them. But it is possible for every home to have the greatest of musical instruments—the one which does not require an experienced player—yet perfectly renders every kind of musical harmony—the Victor. The Victor brings the world's most famous bands before you, playing stirring marches or the gentler strains of waltz and overture, solos on cornet, trombone, violin, banjo, piccolo, flute or harp. The rollicking joke and jollity of the fun-makers will make you laugh till your sides ache. The singers of popular songs, the best male quartettes, and large church choirs are all at your command. And the grand opera singers, whose voices hold vast audiences spell-bound, will sing for you their most thrilling melodies. It is wonderful. It doesn't seem possible that so much melody comes from just one instrument. But it does! And the Victor never tires. It plays as long as you want. Your guests will share your enthusiasm. You will be the most popular hostess in your neighborhood.

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Yours truly,

MARK SHEPARD,

Lawrence, Mich.

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#### CATALOG NOTICES.

The J. A. Scott Co., Detroit, Mich., is issuing a new 32-page catalog explaining the phenomenon of lighting and describing the proper installation of lighting rods, as well as describing and illustrating its up-to-date line of lightning rods and accessories.

The Wilder-Strong Implement Co., Monroe, Mich., is sending out a handsomely illustrated new catalog fully describing its well-known line of "whirlwind" ensilage cutters, shredders, etc.

The April number of the Agricultural College Bulletin gives information with regard to the courses of study offered at M. A. C. and is illustrated with half-tone engravings of the principal buildings on the campus.

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## THREE DAILY PAPERS

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THE MICHIGAN FARMER,  
Detroit, Mich.



## LIVE STOCK

### FEEDING SOWS AND THEIR PIGS.

It is a noticeable feature with many excellent writers to say that such and such things should come to pass with sows and their litters, providing that they have been properly fed and properly handled. An illustrative instance is a quotation from Coburn's new book, in Michigan Farmer, of May 29, in which he says: "Provided with and taught to eat suitable foods some weeks beforehand, pigs are not noticeably checked in their growth by weaning."

The statement is correct, but it lacks definiteness inasmuch as it does not tell what proper feeds are. To some it may be satisfactory, but to most of us it is too ambiguous—there is an uncertainty as to what the author intends to convey. I have before me a work devoted to feeds that does not give a single statement as to the things in the feeds that should be avoided, or the feeds that are safe to use. Whether the authors have lacked actual experience, I am unable to say.

Let us consider some of the feeds that are at hand on most farms, that can be used to feed the brood sows while the pigs are young. We say can be used, for some feeds are unsafe for several reasons. One of the things that the feeder must avoid, is feed that will produce scours. Of late years many cull beans have been fed to the store and fattening hogs, with safety and profit; but when beans are fed to brood sows in liberal quantities, when the pigs are running with them, especially if the weather is wet and cold, there is generally trouble. If such a diet is persisted in there are likely to be losses. The feeder should keep in mind the fact that anything that is hard to digest with the mother will affect the pigs. Beans that are fed to hogs are not generally thoroughly cooked, and are unfit for the brood sows. If allowed to sour they are certainly dangerous.

As the pigs are generally farrowed in April and October, there is grass for the sow to eat—a very proper feed—but if the pigs follow out on the grass on the cold and frosty mornings, they are pretty likely to get scours. If they are retained in the pens until the frost has melted from the grass, it is safe.

The sow can be fed slops from the house, skim-milk and buttermilk, with the grain feeds, and in the spring of the year if one has some sugar beets, or mangolds, they can be fed with benefit. Soaking the ground grain feeds twelve hours is a help as they are more easily digested. A mixture of corn and oats ground together, equal parts, and then an amount of middlings, or ship stuff, equal to both, make a ration that will sustain the sow and enable her to give a large amount of milk. A few ears of whole corn will be relished and help sustain her.

If from any mishap, or mismanagement, the pigs get the scours, it is a good plan to keep them comfortable and dry, and give the sow the medicine. From a half to a tablespoonful of flour of sulfur, according to her size, if given in a little feed, in the morning, a half hour before her regular morning meal, is, perhaps, as good a remedy as the farmer usually has at hand. It can be given as many mornings as the necessity of the case seems to require.

As to the feed for the young pigs while with the sow, it is not a difficult matter to select it. Pigs will pick up shelled corn about as soon as anything they can get hold of. Let them have a little to chank on for their benefit. Some crusts of dry bread crumbled, and put into some sweet milk, in a little trof, to which the sow does not have access, makes a good starter. If the milk is from a cow recently freshened they like it all the better. In the absence of the milk from a newly freshened cow, use a little sale molasses, as it will attract them on account of the odor, and they will take hold of it quicker than if it were not in the feed. Scalded middlings mixed in with the milk and fed warm makes an excellent feed.

After the pigs have got to eating well be careful and not feed only as much at a time as they will eat up clean. Sloppy feeds left in the trof, especially in warm weather, soon sour and if eaten by pigs will often cause scours. Always feed from a clean trof.

For an ideal ration take of corn and

oats ground together, equal parts, sift out the oats hulls, and mix an equal amount of middlings, and take about what they can eat up clean each time, scald it, stir in some milk and feed while warm. Increase the amount of feed as their capacity for holding it increases, and no faster. Feed regularly and give them a chance for exercise, and a dry, comfortable place in which to sleep. Fed on such feeds as we have mentioned, for both sow and pigs, there ought to be no trouble on account of the diseases to which they are often subject, or any check in their growth when the time comes to wean them.

Wayne Co.

N. A. CLAPP.

### BLOAT IN SHEEP.

Many flock owners have learned by dear experience that loss is frequently incurred by bloat while the flock is on pasture. The very tender and succulent condition of the grass during the early spring months induces sheep to feed greedily upon the young growth which produces congestion of the digestive tract. It is an ailment which attacks sheep that runs its course very rapidly and unless prompt and proper treatment is immediately administered fatal results follow in a very short time. Many valuable animals are sacrificed every season on account of this trouble which is generally most prevalent during the early pasturing months of spring. However, any sudden change of feed is very apt to induce bloat and particularly so in case the change is from dry feed to that of a more juicy nature. Sheep, when suddenly turned to pasture are more subject to attacks of bloat than when gradually allowed to become accustomed to the radical change of diet. When turning to pasture in the spring it is an excellent practice to permit the flock to graze for a short time at first and then put them back on dry feed. When sheep are turned onto meadow pastures there is great danger of bloat as the forage comes on very rapidly when the weather conditions are favorable.

Bloat, or hoven, as it is frequently termed, is produced by fermentation in the rumen, or first stomach, of very succulent green food which distends the walls of the organ and causes it to press injuriously upon the diaphragm which encloses the chest. This abnormal condition prevents the contraction of the membrane which separates the respiratory organs from the digestive cavity, thus interfering with respiration.

There are several excellent treatments for bloat which should be well understood by every flock owner as very little time is generally available in which to call a veterinary or look up any form of treatment. It is a good practice for every flock owner to have near at hand a trochar for tapping the left flank half way between the haunch and first rib and well up towards the back-bone so that the pent-up gas will readily escape thru the orifice. In case a trochar is not at hand a pocket-knife will answer the purpose, altho it is less reliable. An alkaline solution poured into the stomach frequently alleviates the symptoms and removes the trouble. I have given hypofluorite of soda, 1 dr., in warm water and removed the attack. I have also obtained good results from giving 1 dr. of carbonate of ammonia in a little water. After the attack has been reduced, a dose of epsom salts should be given to remove the fermented matter in the stomach. There is one thing that should always be kept in mind in case an animal is tapped for bloat during the hot weather, and that is to apply some antiseptic to the wound to prevent parasitic infestation.

Too much attention cannot be given to handling the flock during the early spring months to prevent attacks of bloat. Sheep that are pasturing on clover should be watched closely, but perhaps no other forage crop is more apt to induce bloat than rape. When I first began growing rape I had considerable trouble with bloat. It is not safe at any time to allow sheep to pasture on succulent forage when at all damp. As a rule sheep are far more apt to overload the stomach when the forage is damp than when dry as the dampness has a tendency to add to its palatability. I never allow my sheep on rape when there is even a light dew, as I have learned by experience that I am only inviting trouble. Change of pasture should always be brot about very gradually and only when the forage is dry from natural heat.

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CONDUCTED BY DR. W. C. FAIR,  
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Injured Spine.—I have a colt that is now about a year old that has been sick for about a week; he is fleshy and apparently in fairly good health, but has had distemper, and while I was trying to catch him he threw himself. We succeeded in getting him up, but he has poor use of his hind quarters. Our local Vet. has been treating him and he seems to be improving. Do you believe the treatment ought to be kept up? G. R., Mason, Mich.—When your colt fell, it is possible that he fractured one of the bones of his back, or displaced vertebra. There is

grapes successfully, I find it necessary to remove these worms and I invariably use a small pair of splinter forceps and when I have no suitable instruments, I strain a feather almost to a point, dip it in some spirits of turpentine and pass it into the entrance of windpipe, base of the tongue, and turn it around two or three times, but of course, you must be gentle in doing this work, or the remedy will be worse than the disease. You can enter this feather when the animal is breathing as the entrance of the windpipe opens. Many chicken breeders give a little asafoetida, others give some camphor occasionally. One part turpentine and four or five parts lard or vaseline applied to the necks of young chicks once a week is a fairly good preventative. I need not tell you the importance of separating the sick from well, and use disinfectants freely and clean up your premises where you keep your poultry.

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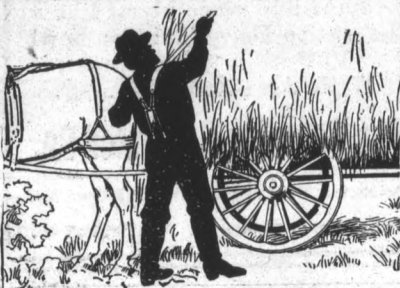
You may suffer a great deal with pain in the back, bearing-down feelings, headache and loss of ambition.

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## POULTRY

### THE TOULOUSE GOOSE AS A PROFIT EARNER.

The Toulouse goose is supposed to make up for its deficiencies as a parent by its great weight, abundance of feathers and easy keeping qualities. It is the almost invariable custom to set the eggs under hens, owing to the goose's habit of breaking them while sitting. A good-sized hen will cover and incubate four or five goose eggs, and usually every egg will produce a thrifty gosling.

Recently I have become convinced that the troubles of the Toulouse goose in hatching her own eggs come from the fact that the breeding stock is usually kept too fat. Her instincts are all right. She wants to do her whole duty by her offspring, but when fed too much grain her fat accumulates until her efficiency is ruined and disaster to her whole clutch of eggs frequently follows.

After repeated experiments which had convinced me that I could not afford the time required for hatching and rearing goslings "by hand" and by the hen, I decided last spring to try once more, as we had a patch of waste ground, valueless for general purposes, but an ideal place for a goose pasture.

Three Toulouse geese were obtained in early spring. They had been kept on scanty rations the previous winter. A fine gander was secured and all were turned into a marshy pasture where they soon proceeded to shift for themselves. After the snow had uncovered the grasses

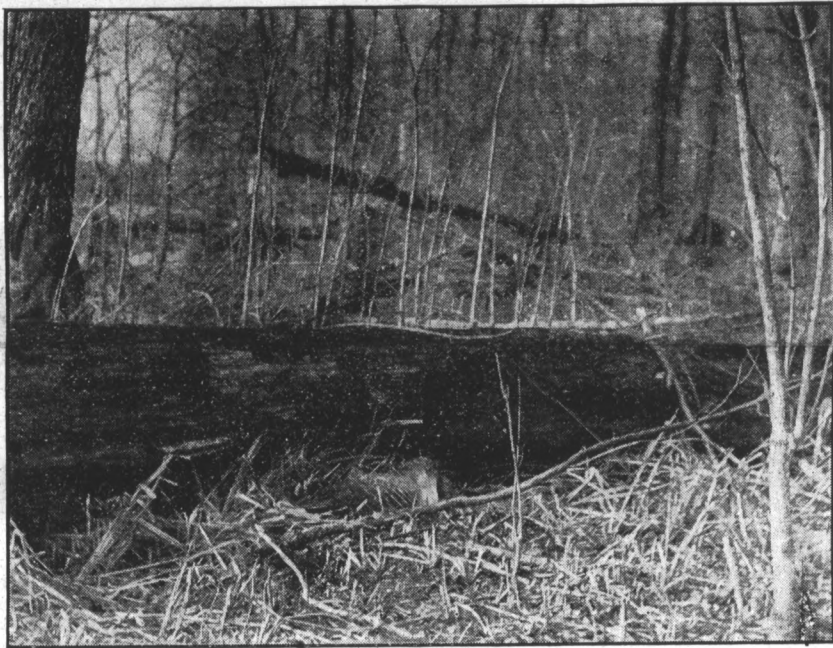
goose's retention of her wild instinct for hiding her nest. She is not easy to find in the picture, nor was she easy to see when I was looking directly at her. Among the grays and browns of her surroundings her brown and gray feathers blended with the dry leaves and sticks about her. Notice the curve of her neck and the clever way she hides her bright bill from sight until head and neck are not unlike the fallen branches about her. A piece of wood could not have been more motionless than she at my approach.

When, after a couple of weeks, this nest was inundated in the flood that followed the excessive rains of the last of April, I raised the eggs out of the water and put them in a box of straw. This proving inaccessible, a stairway of sticks and stones was made and this she promptly climbed and then resumed her interrupted labors.

Given a supply of water, waste land and a fence, I am convinced that a few geese should give better returns on the investment with less labor than most other kinds of stock. The feathers will pay incidental expenses and the increase should be all profit. But, if you value peace of mind, do not forget the fence.  
Saginaw Co. E. H. McDONAGH.

### MAGNITUDE OF THE POULTRY INDUSTRY.

Poultry growing is an adjunct of every properly conducted farm and of every rural home. Probably no class of live stock is more widely distributed nor is any other so universally reared as poultry. The flesh of fowls is prized as toothsome and nutritious by all, while



Puzzle Picture: Find the Goose—An illustration of how well this Fowl retains the Wild Instinct for Hiding Her Nest.

and roots they practically discontinued coming up at the feeding hour. They obtained their sustenance entirely from the meadow and marsh. There, on the little "islands" among the reeds, they made their nests, each bit of land, as the old school geographers told us, entirely surrounded by water. There the mother geese set and hatched their young. After waiting a day or two for the goslings to gather strength for the journey, with many loud directions and much encouraging help from the gander, they led the young down into the water whence they swam to land. Alternately swimming in water and walking across the little islands of the marsh, they reached the meadow and safety.

All three nestfuls hatched within as many days, and a busy and important fellow was the father, as he led out each flock, and finally combined all into one harmonious whole.

#### No Feed or Care Required.

They were never fed until full grown. A vacant shed was put at their disposal, where they were driven in rainy weather, and at night. Neglect in wet weather cost a few during the first few weeks, but within a very few days the old geese themselves marshalled their forces to their shelter at night. In fact, they did everything but fasten the door. This I did, and let them out in the morning. That was absolutely all the care they received, and we had twenty big young geese in the fall for which we had ready sale before we began feeding for fattening.

The picture which accompanies this article presents a fine example of the

## MAKING SUNSHINE

### It is Often Found in Pure Food

The improper selection of food drives many a healthy person into the depths of despairing illness. Indeed most sickness comes from wrong food and just so surely as that is the case right food will make the sun shine once more.

An old veteran of Newburyport, Mass., says: "In October I was taken sick and went to bed, losing 47 pounds in about 60 days. I had doctor after doctor, food hurt me and I had to live almost entirely on magnesia and soda. All solid food distressed me so that water would run out of my mouth in little streams.

"I had terrible night sweats and my doctor finally said I had consumption and must die. My good wife gave up all hope. We were at Old Orchard, Me., at that time and my wife saw Grape-Nuts in a grocery there. She bought some and persuaded me to try it.

"I had no faith in it but took it to please her. To my surprise it did not distress me as all other food had done and before I had taken the fifth package I was well on the mend. The pains left my head, my mind became clearer and I gained weight rapidly.

"I went back to my work again and now after six weeks' use of the food I am better and stronger than ever before in my life. Grape-Nuts surely saved my life and made me a strong, hearty man, 15 pounds heavier than before I was taken sick.

"Both my good wife and I are willing to make affidavit to the truth of this."

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#### DOGS.

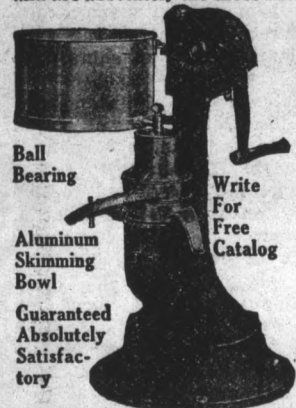
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## THE DAIRY

CONDUCTED BY COLON C. LILLIE.

### SOME MORE SILO QUESTIONS.

As I am thinking of building a silo this year I would like to ask Mr. Lillie a few questions. Do you think it will pay a man on a small farm to build a silo where he has 70 or 80 acres and keeps from 8 to 12 cows, besides other stock? What kind of wood do you consider best for silo building? How is long leaf yellow pine for lasting quality?

How long does it take the ensilage to ferment after silo is filled? Is it not best to wait a while before commencing to feed it? Does the ensilage spoil after you have fed from it all winter if some remains in silo during the summer?

Is it a good plan to feed ensilage when your cows are on pasture? Is it not a question whether it pays to put corn (good corn) into a silo at present prices, (45c per bu. ears)?

What size of silo is best? How would dimensions of 12x34 ft. do? Is it not best to have height rather than width? I am thinking it will be best to put up a silo a little larger than needed at present for I can get the cattle after I have the feed on hand.

What per cent of gain do you consider there is in putting corn into a silo over the old way of cutting, husking and feeding in the stalk? Some claim 25 to 40 per cent. How is ensilage for wintering horses? Will ensilage keep over summer and be just as good to feed the next winter?

Isabella Co. WM. A. BORTON.  
I am certainly of the opinion that it will pay any farmer who keeps from seven to twelve cows, and other young stock, to build a silo. I have expressed this opinion many times in The Farmer and the indications are that I will have to express it a good many times more. I cannot tell Mr. Borton the best kind of wood to build a silo of. Really, I do not think it makes very much difference. I am sure that the pine you speak of will make a good lasting silo. The idea nowadays is, however, that one can afford to build a cement silo, and certainly after it is built it is almost indestructible and will last indefinitely.

Ensilage will heat up after the silo is filled and remain warm for a week or ten days, then it gradually cools off. The fermentation will probably stop in less than ten days. I do not think it makes very much difference whether you commence feeding at once, or whether you wait until after the fermentation is all over. Fermentation is slight anyway, and not enough to injure the ensilage for feed. If you begin feeding as soon as the silo is filled, taking it off the top, you will have no waste whatever. If you allow the ensilage to wait for two or three months before you begin to feed, there will be six or eight inches on top that will not be fit for feed. It will be practically decayed so that you will lose that much. But, of course, when the silo is ordinarily filled, there is some green grass in the pasture and you can get along with dry feed until cold weather comes. That will do away with the necessity of feeding ensilage. If you have any ensilage left over after you are done with winter feeding, the top of it will spoil if left all summer. A good way is to rake it off smoothly and cover it with fine chaff or cut straw thoroly wet down. This will keep the air away and prevent any large portion of it from spoiling. It is a good plan to feed ensilage at any time during the year when the cows will eat it. If they are on splendid pasture they will not eat much ensilage, but as the pasture gets the least bit short they will eat a good feed of ensilage every day. Consequently it will pay to feed it whenever the cows will eat it.

I do not think there is any question about the policy of putting corn into the silo, no matter how dear corn is. As a matter of fact, you have got to feed the cows. It makes no difference whether corn is 50c per bu. or 75c per bu. If you don't raise it, you have got to buy it. Now, putting it into the silo is the most economical way of harvesting the crop. You can save it with the least loss. Then why not put it into the silo? You might better put it into the silo than to husk it, because you do it more economically and with less loss. So don't be afraid of putting high-priced corn into the silo. You have to have the feed.

The best proportions for a silo will depend almost entirely upon the size of the herd to be fed. The size suggested, 12x34 ft. would, I think, be just about the right dimensions. If you will extend that up to 40 feet in height it will be still better.

I think that you save at least 25 per

## 10 Feet of Disks



**THIS** picture shows the 52 disks used inside one of the many "bucket bowl" cream separators that farmers and their wives are everywhere discarding for the simple, sanitary Sharples Dairy Tubular. We have slipped the 52 disks onto two 5 foot sticks so you can count them. The manufacturer and his agents call this disk bowl simple. Looks simple, doesn't it? They also say the 52 disks can be washed all together—as one piece—and hung up to dry. What do you think of such a statement? Ten feet of disks to wash clean and dry thoroughly, on both sides, twice daily. What a weary job after a hard day's work or a late milking. The maker of this "bucket bowl" machine has brought infringement suits against several concerns who have made and sold cheap cream separators with disks like his for a number of years. Disk machine sales have so decreased that he needs all the business he can get.

Why make the mistake of getting a "bucket bowl" machine? You'll very quickly wish you had a simple, sanitary, Sharples Dairy Tubular Cream separator instead. The dairy Tubular bowl contains just one instantly removable piece about like a napkin ring in size and shape. The entire Dairy Tubular bowl is easily washed clean in 3 minutes. 1909 sales exceed most, if not all, "bucket bowls" combined. Write for catalog No. 152.

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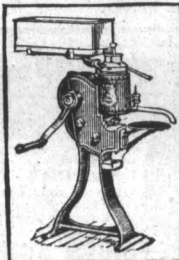
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cent of the corn crop by putting it into the silo, over the old way of dry curing. This is under favorable conditions for dry curing. If the stalks are left out in the field half of the winter it could easily increase the loss to 50 per cent. I think the sugar beet grower should not feed ensilage when he first fills the silo, but feed his beet tops as the beets are harvested at about that time of the year. Then, after he gets his beet tops fed he can open his silo and have a succulent food for his cows from early in the fall until grass grows the next spring.

#### MAY MEETING OF NORTH OTTAWA COW TESTING ASSOCIATION.

The May meeting of the North Ottawa Cow Testing Association was held at the farm home of J. M. Park on Saturday, May 29. It was decided to hold the next meeting at the farm of Colon C. Lillie, June 26.

After partaking of a chicken dinner, the association discussed the following subjects:

##### What Kind of a Silo to Build.

Mr. Ed. Lawrence led in the discussion of this topic. He stated that he now had a stave silo but thinks that if he were to build again he would build a cement block silo. The consensus of opinion was that a cement block silo is the best that can be built. Mr. Lillie, however, stated that he intends to build a new silo this year and will probably build a cement-lined, lath-and-plastered silo. He stated that he has figured on the cost of the cement blocks, and also on the cement-lined silo, and is confident that a cement-lined silo can be built for less money and that it will be practically as good. His old silo is a cement-lined silo; it has stood the test for some sixteen years and is practically in as good condition as ever. A cement-lined silo is simply lathed on the inside with patent board lath and clapboarded on the outside, then plastered on the inside with rich cement mortar on the board lath. This gives a dead air space which protects against freezing and gives as tight a wall as cement blocks. If properly constructed it is in every way as good as cement blocks. Also, where one has to purchase gravel and haul it any considerable distance it is probably cheaper than a cement block silo.

The next subject discussed was "Feeding and Keeping Account of Young Cattle." Mr. Anderson, the cow tester, led in the discussion. He said he thought it just as necessary to keep track of the cost of raising the young heifer, from the time she is dropped until she becomes a cow, as it is to find out the most economical producer among cows. That is the first test. We charge the cow with all the feed consumed and give her credit for the butter-fat she produces, but we do not give her credit for the skim-milk, and very few people have any very well defined idea as to the value of skim-milk. Now, if we keep records of the young growing heifer we will find out something about the value of this skim-milk when fed on the farm, and will also know the cost of producing or raising the heifers until they become producers.

Another question that ought to be considered by the farmer is, how much new milk should we feed a veal calf? Mr. Anderson was of the opinion that farmers are fattening veal calves at a loss; that they might better sell the butter-fat in their milk at the market price than to feed it to calves; that they would get more profit out of it. Also, how much can we afford to feed the farrow cow that we want to fatten? Shall we keep her any considerable length of time, or shall we sell her as soon as she is unprofitable as a producer of milk? In order to know anything about this we must keep track of the feed she consumes and make some estimate of the expense. Unless we do that we do not know whether we are throwing money away or not. One member suggested that if we could purchase cows when we wanted to, it would be better to purchase cows than to raise our own heifers; that is, that there would be more profit in them. But the opinion of most members present was that the only way to get good cows is to raise them, and that the other plan would be impractical. Consequently, we have got to know what it costs to raise them. Mr. Anderson was of the opinion that the cow tester would have time to figure the cost of keeping the young cattle at the same time he did the testing for the cows. Some members present thought it would be an excellent idea to next year attempt to get some data relative to the

cost of growing young dairy stock, and it is likely that some very valuable results will be secured.

##### Increasing the Protein in Clover Hay.

The third and last question was "When to cut and how to make clover hay." Mr. D. C. Wells led in the discussion. His rule is to begin to cut clover as soon as some of the blossoms begin to turn brown. He believes that the proper way to cure clover hay is to cure it in the cock. He does not always do this on account of the necessary labor and expense, and if the weather is good he attempts to make the hay in the windrow. This seemed to meet the views of those present. Secretary Lillie suggested that if the clover is cut when the first heads began to blossom, and is properly cured, the same as alfalfa is cured, the hay will be richer in protein than it is ordinarily. He stated that the chemical analysis of alfalfa shows about 12 per cent of protein while the analysis of red clover hay shows only about 6½ per cent, but the analyses of the green growing plants do not show anywhere near this difference. There is only about 1 per cent difference in digestible protein between young growing red clover and young growing alfalfa. His opinion was that the reason there is so much difference in the hay after curing is that alfalfa has to be cut before it gets too ripe, while the common practice is to leave clover until it gets nearly ripe, and consequently it has lost a considerable portion of its digestible protein.

Now, if clover hay is to be cut when the earliest blossoms appear, the only safe way is to cure it in the cock. It cannot be cured at that time in the windrow. It takes too long to cure it in the windrow and much of it is scalded in the sun; the weather in our climate at this time of year is too catchy, and it would be too risky to have any amount of it cut at once and attempt to cure in the windrow. Consequently the only way to do is to cure in the cock. Then comes the idea that if we cut much of the clover hay and put it in the cock, a heavy rain would cause great damage. The only safe way is to follow Gov. Hoard's advice and have some hay caps made out of white ducking or cotton cloth for the cocks. This question of hay caps was an entirely new one for the members of the association, no one present ever having used them, and it led to quite a discussion as to what they should be made of, how much they would cost and whether, on the whole, they would be practical. Several members finally agreed to try hay caps, if only in a small way, this year and report progress. Mr. Matthews, who has had considerable experience in buying and selling hay, said he had never yet been able to buy choice hay—nothing but No. 1. Choice hay is hay that is very dry, or cured under cover, and the only way to get it would be to cure the hay under caps. It was the opinion of a majority of the members that we could well afford to try curing clover under hay caps. If the hay becomes richer in protein, and therefore much more valuable, then we could just as well put a little expense into hay caps and cure our clover hay in this way as to pay out so much money in the purchase of bran, gluten feed, cottonseed meal, etc.

Another idea suggested was that if we cut the clover crop early we would be practically sure of another good crop of clover that season. Mr. Lillie stated that last year he cut one field early enough so that he cut two crops afterward, making three crops in all of red clover hay in one season. The second and third crops were not large, but the season was very dry. If there had been timely showers there is no reason why he could not have gotten three good crops of hay. You cannot do this, however, if you leave the first crop until some of the blossoms begin to turn brown. You must cut it before it is fully mature, just as you would alfalfa. If, therefore, the cutting of clover when the first blossoms appear, and curing it in the cock under hay caps, will make hay that is much more valuable and will practically assure two crops, and in favorable seasons three, off the same field, it is well worth the consideration of every man who grows clover for stock.

Mr. Anderson was asked how they make hay in Denmark. He replied that all of the hay there, the clover, the timothy and all the grasses that are put up for hay, are cured in the cock; that no one attempts to cure hay in the windrow. The grass is cut before it matures. The probability is that the farmers of this country have been cutting their clover later than it ought to be cut for the greatest profit.

SECRETARY.

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Unscrupulous competitors, struggling desperately to retain any separator business, are making such reckless statements as to separator "DISCS" that a few words more on our part may not be amiss.

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DE LAVAL "DISCS" enable the construction of a bowl in the LATEST IMPROVED DE LAVAL SEPARATORS that is quickly and easily cleaned and absolutely sanitary, a combination of most important advantages not to be found in any other separator made.

DE LAVAL separators cost no more than would-be competing separators of relative actual capacity, save their cost every year, and last from two to ten times as long.

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The Lawrence Pub. Co.,  
Detroit, Mich.

DETROIT, JUNE 12, 1909.

### CURRENT COMMENT.

That there is a growing interest in the highway improvement problem seems to be clearly indicated by the discussions which may be heard on the subject wherever a few farmers are gathered, either in a public meeting or for a neighborly chat. This is a matter for congratulation from the standpoint of better roads, for the reason that we will have just about the kind of roads that public sentiment demands, hence road improvement is more a matter of education than of legislation. A united public sentiment in favor of road improvement along any line or in accord with any plan would accomplish wonders, but with public sentiment divided as at present; with one faction favoring the county road system and another as strongly opposed to it; with one set of men believing in the benefits to be derived from the cash road tax and another set so dissatisfied with it that they do not want to see it successful; with opinion as badly divided with regard to the benefits to be derived from the building of permanent roads with state aid, and with opinions equally at variance as to the changes which should be made in the road laws to make them more satisfactory to a majority of the people, rapid progress in road improvement may be effected should be there is need enough for road improvement in practically every township in the state is one point upon which those holding such widely different opinions on the proposition in general should be able to agree, and the question which every man should ask himself at this time is not how the conditions under which such improvement may be affected should be changed, but rather how he can use his influence to the best advantage for the improvement of the roads in his community under the conditions which now surround the problem, and which must continue to surround it for two years more at least.

The man who thinks the best interests of the community can be served by the building of permanent roads under the state reward road plan will find plenty of scope for his activities in working up sentiment to that end. Someone must take the initiative in all movements of this kind, and one man's influence, when exerted in the way of educating public sentiment along this line, has often accomplished more than even he thought possible.

Thus working for the public good may be considered a thankless task, but the consciousness of having done something worth while for the benefit of the community will be found ample reward by the man with sufficient public spirit to undertake a work of this kind. Probably this is one of the chief benefits derived from the county road system, in the counties where it has been adopted, since a great proportion of the state reward road has been built in these counties. But there is nothing to prevent the townships of the state from taking advantage of the provisions of the state reward road law. All that is needed to this end is some active work by public spirited citizens who are willing to devote a little time and effort toward interesting their fellow citizens in the securing of state aid in the improvement of the main traveled roads in the township. This does not of necessity mean that they must advocate the building of expensive stone roads. The state reward road law provides for state aid in the building of graveled roads which come up to the requirements of the law, and many townships might profitably receive such aid in the improvement of the main traveled roads within their boundaries, if interested citizens would only take the initiative to that end. The legislature has increased the appropriation for this purpose for the next two years and it would be the part of wisdom for the citizens living in localities which are not under the county road law to get a fair share of such assistance for the improvement of their highways.

Then there is a large class of farmers who believe it to be for the best interest of all concerned to bring about a degree of improvement in all the roads, rather than the more permanent improvement of a small portion of them. There is also ample room for the exercise of their influence in this direction. While the highway commissioner, under the direction of the township board, is charged with the duty of maintaining and improving the roads in each township, yet these officials will, in the great majority of cases, be amenable to public sentiment, and it is only necessary to develop such sentiment to have it find expression in a practical way in the betterment of the roads of the community. It may be by the use of the road drag, the reducing of heavy grades, the graveling of sandy stretches, or in any one of a dozen directions, but the persistent effort of any one or more men, working along the same line, if wisely directed, will surely be reflected in the character of the roads in any community within the year. Perhaps there may be a lack of funds to make needed improvements, but the working up of a general interest in the proposition will make it easier to secure larger appropriations for next year. In many townships the size of the appropriation for road purposes was immediately reduced when it became necessary to pay the tax in cash, and yet the system is blamed for the apparent fact that so few improvements are made on the highways of the township since its adoption.

And not alone in the application of the road improvement tax, but of the road repair tax as well, is there room for the activity of interested parties in any community. During the past year we have heard many complaints and been asked to give advice in many cases where complaint has been made that the road repair tax was not wisely and properly applied. The law provides that this tax shall be expended by the highway commissioner on the highways which will directly benefit the property taxed, but with the provision that if there is a surplus after the highways and bridges directly adjacent to the property taxed have been put in good condition such surplus may be expended on other highways and bridges in the township, wherever any improvement may be needed. But to prevent the abuse of this provision, the law further provides that upon complaint in writing from any ten or more resident taxpayers that the road repair fund is being unequally or unjustly applied, or work improperly performed, the township board may direct the expenditure of such road repair fund or the manner of performing the work. In a majority of cases it will not be necessary to resort to the township board if grievances of this nature are taken up with the highway commissioner in all fairness, but it is a proper safeguard and may prove useful in many instances.

So, no matter what our views may be with regard to the proper provisions of a road law which would fit our ideal, let

us make the best of the present law in the betterment of our highways, until opportunity offers to change it. Probably no two farmers would exactly agree as to the kind of weather that would be best for their business, but they don't sulk about it if it is not to their liking, because the weather is a factor which they cannot control. They simply do the best they can under conditions which exist, even if they are not as they would like them. The same men would perhaps agree little better on the highway proposition, but it would be to their mutual interest and the interest of the community at large for them to work together as far as possible to the end that the highways may be placed in the best possible condition under conditions as they exist. The man who simply washes his hands of the whole matter has no real right to complain of results. It is a public problem, and it is every man's public duty to aid as best he can in its satisfactory solution.

### The Gasoline Can.

Among the laws passed by the legislature during the recent session was one providing for more complete and stringent regulations with regard to the sale and use of gasoline. The reader will remember that a law passed two years ago provided that gasoline and kindred petroleum products must be kept by merchants in red cans properly labeled, and could only be sold or delivered by them in cans so painted and labeled. The changes incorporated in the present law make it more stringent in that it applies to the consumer as well as the merchant. This law is known as House Enrolled Act No. 25. Its provisions are briefly summarized by State Oil Inspector Neal as follows:

"This repeals the act providing for the labeling of gasoline cans with tags or labels.

(1) At retail gasoline, etc., can only be delivered to the purchaser (consumer) in cans, casks, barrels or packages painted a vermilion red (meaning a bright red) having the name of the contents lettered thereon.

(2) Persons (consumers) can purchase or have gasoline, etc., on hand for use, only when same is contained in cans or packages so painted and lettered.

(3) It is unlawful to put kerosene in cans, packages, etc., so painted and lettered.

(4) In other words, tanks on stoves, in autos, boats, engines, etc., can only be filled from cans, barrels, casks, etc., that are so painted (bright red) and lettered.

(5) Merchants must have their gasoline tanks in their places of business painted a bright red and lettered.

(6) Wholesalers can only deliver gasoline etc., to retailers, or users of gasoline in, or into, tanks, barrels, etc., that are painted red and lettered.

(7) And violations of this act should be promptly reported to this department for investigation, or to the deputy in whose district the violation occurs."

This law goes into effect September 1st of the present year. Gasoline for cleaning purposes may be sold in bottles, properly labeled, in quantities of not more than one quart, as under the old law.

### HAPPENINGS OF THE WEEK.

#### Foreign.

According to the last report of the geologist of Mexico, that country now has in sight 300,000,000 tons of coal. The country is now independent as to coal supply and has imposed a duty of one dollar a ton on all coal imports.

The government of Australia has, thru its premier, offered to the British government a contribution in the form of a Dreadnaught battleship of a similar addition to the navy of the mother country.

Floods in western Canada have interfered with traffic generally and some of the main lines of roads have not been able to get a train thru in several days.

A parade held in Milan in commemoration of the Franco-Italian war which gave Milan her independence, resulted in a fight when the young socialists in passing the statue of Victor Emmanuel lowered their flags as a protest against monarchism. The crowd watching the procession immediately fell upon the socialists and tore their flags to pieces, injuring a large number.

Mr. Wellman, who is about to make another attempt to reach the North Pole has, besides other new features on his airship with which he hopes to reach the coveted point, a set of propellers that will raise or lower the airship at the will of the navigator.

Thirteen balloons started in a long distance race at Essen, Prussia, June 6. The three balloons making the longest trip will be entered in the international contest starting in Switzerland this fall. A company is now organized for the purpose of conducting daily airship service between Paris and other French cities. The scheme is being supported by large capitalists and the French government. The latter is interested because

of the aid such a fleet of airships could render in case of war.

The last vital statistics of France shows a large diminution in the number of deaths for the year 1908 and an increase in the number of births, the population of the country having increased thru natural sources 18,067 during that period.

The Italian minister of marine has ordered 10 destroyers and one scout ship built. The vessels are to be completed within 20 months.

The arched roof that supports Villebroeck canal at the point where it crossed the Seine river, Germany, broke last week and allowed water from the canal to pour into the river in such quantities as to flood the surrounding territory. Boats in the canal were stranded because of shallow water.

The ice fields about New Foundland continue to embarrass transatlantic traffic, boats at this season always having a free course by way of Belle Isle and thence out across the ocean; but now it is necessary for them to make a circuitous route around the southern part of New Foundland to escape the ice.

The policeman who executed twenty men at Velardona, Mexico, because they participated in a riot, was arrested recently and is now in prison on charges of punishing the men without giving them a trial.

In spite of the fact that the recent cruel outrages in Asia Minor have abated, there is great uneasiness in the districts where massacres occurred and it is likely that martial law will be declared at Aleppo and possibly elsewhere. The new government is sending Macedonian troops to the seat of trouble. The court martial trials of those guilty of the former atrocities will then be held.

#### National.

At a conference held in Washington of the boards of health of the different states a resolution was passed asking the Congress of the United States to appropriate \$1,000,000 to establish a sanitarium at which place all lepers of the country can be kept at the expense of the government.

The Jefferson Davis Memorial Park was dedicated at Fairview, Ky., on June 3. The site of the park is the birthplace of the Confederate leader.

A gasoline motor car was recently tested in Minnesota and the engineers found it to be perfectly feasible, as a speed of 60 miles an hour was attained over a course of 75 miles and return. The car carried 75 persons and is fire-proof, being built of steel. The railroad companies are planning to use the cars on their branch lines where it is believed they will lessen expense over the present system and give much better service.

Altho the new Cuban government has acted at times to the displeasure of the government at Washington, the latter, according to a recent statement, is of the opinion that the new attempt to beget a nation of the inhabitants of the islands looks promising. The financing of the adventure will be trying but the wealth of the island is such as to make possible the handling of a much larger undertaking than has yet been tried.

An American company is embarrassing several transportation companies by buying up all the dock facilities in Havana and Matanzas, Cuba.

Ten balloons started from Indianapolis Saturday in a contest for long distance flying. Sunday evening four of the number were still in the air. The others had landed in Kentucky and Tennessee. The course of all the balloons was south.

A fire which caused the destruction of 1,000 buildings in Presque Isle, Me., and made as many people homeless, did damage to the extent of \$300,000.

A. Milton Holden, a Detroit capitalist, banker and broker, committed suicide by shooting last Monday morning.

The Wisconsin senate lost a resolution asking congress to change the constitution so that senators can be elected by the direct vote of the people.

Not in years has the number of cases of rabies been so numerous as at present about Harrisburg, Pa. Twenty-five burroughs and townships are under quarantine.

### FRUIT PROSPECTS.

This season promises to be a good year for most small and tree fruits. Of course, there is still time for frosts, insects, or fungous diseases to get in their work, but barring such possibilities we should have a good crop of all fruits with the possible exception of apples and strawberries.

Apples trees that did not bear heavy crops last year and were not too much injured by the scab fungus, have blossomed well, but those which bore a crop last year, or which blossomed full, but were prevented from maturing a crop by the ravages of the scab fungus, are blossoming lightly or unevenly.

Strawberry vines that had good care last summer and made a good growth in spite of the dry weather, are showing up well this spring. Many patches, however, were badly damaged by the drouth of last fall or by the freezing and thawing of the bare ground last winter and unless copious rains stimulate them during harvesting season, the yield is apt to be light.

Pears, plums, peaches and cherries all blossomed fairly well and a sufficient portion of the fruit appears to be setting for a good crop.

Cane fruits were not killed down as badly last winter as usual and are budding well. In fact, there was little killing back of wood of any kind last year on both cane fruits and trees. This was no doubt due in part to the mild winter, it hardly reaching the zero mark at any time, and in part to the dry autumn which checked growth early and allowed it to mature well before cold weather. This checking of wood growth no doubt had much to do with the formation and maturing of fruit buds, and hence the good prospects for fruit this year. S. B. H.



## ROAD IMPROVEMENT.

The editorial in The Farmer of April 10, on road improvement is to the point, and it is a pity that the advice given is so seldom acted upon. For years we have been advised to use the drag, the split log, the plank drag, a piece of railroad iron, or something of the kind, to go over the roads in the spring to level them up and fill the ruts, and also to give them the same kind of treatment after a heavy rain, while they are still muddy, to stir up the mud, especially if it be clay soil, and make it dry hard. Every farmer knows it will not do to work his land while the soil is water-soaked, and the heavier the soil is the worse the results of stirring it when it is soaked with water. We all know that working it at such times causes it to bake when the sun dries it out, so that it becomes nearly as hard as a brick, and the less vegetable matter in the soil the harder it will bake. Now, while such a condition is far from desirable in our fields, yet for roads it is an ideal condition. This is just the results that the split log drag will give if used at the proper time, and as the right time to use it is usually when the soil in the fields is too wet to work, the farmer can well afford to do a little missionary work near at home, and show others what can be accomplished if the township officer cannot be induced to act. The average farmer, if he stops to argue the matter at all, will argue that he has paid his highway tax in good dollars and cents, and that it is up to the township officers to apply it to the roads in the way to do the most good, and he is right, in a way, but the township officers, alas, are often no wiser than the average of mankind, and to judge from observation, they sometimes do not average up very well, but that is the fault of the farmers, for they do the electing, and ought to see that the candidate for the office has other qualifications than being a good republican, or a good democrat. Last year a stretch of road in our township, clay and sand, mostly the latter, was gone over, late in the spring, after the soil had dried out, with a disk harrow, a roller hitched behind. (I am glad to say that the officer was not re-elected this spring). What good such treatment does at such a season surpasses my comprehension, unless to enable some farmer to earn good wages. To judge from the prices paid in some cases, money was no consideration. Take, for example, the case which actually occurred in one of the townships in this county, where a farmer, with team and roller was employed to go over a stretch of two miles of road on which the scraper had been at work. The farmer was to go over the road twice, down and back, so that he drove four miles, which he could easily do in less than an hour. The price received for the work was two dollars, which I consider pretty good pay. Most farmers would be willing to neglect their farm work and put in ten hours a day, six or seven days in the week, at twenty dollars a day. I certainly hope that such cases as the above are rare. We all want good roads, and I think the most of us are willing to pay for them, a reasonable amount, but we don't want to be taxed to provide work for someone at twenty dollars per day for man, team and land-roller. We ought to elect some man who has proved himself an intelligent and up-to-date "path-master" under the old system, and if he "makes good" then keep him in office as long as possible, and let him work out an intelligent system of road improvement for the entire township. We cannot expect any great results in one year from even the best of men, but if an intelligent system is followed and time is given to work it out, then we can confidently look for better roads each year. It might be well for progressive young men in each township to make a study of the good roads problem, and become thoroly informed on the best way to treat the roads under varying conditions of soil and drainage. One who had proved his ability to make the roads of a township what they ought to be would undoubtedly be in demand at a good salary.

I consider it most unfortunate that the vote on the county road law, at the spring election, was adverse. The cities in the county all voted in favor of the law, but the rural districts were against it without exception. I am convinced that it was only a lack of understanding of the scope of the law that induced so many to vote against it. The only explanation which I saw was an editorial in the Michigan Farmer a few weeks before election. Not one farmer that I

talked with on the subject knew anything about it except that a county road law was to be submitted to them at the spring election, and most of them seemed to think that there was to be a change from the township unit to the county unit, and that one man would look after the roads of the county, or appoint deputies to represent him, which would make a lot of appointive offices, and tend to create a "Machine," and they did not want any more machine politics. There ought to be started a campaign of education, so that when the subject is again brot up for vote it will be understood. I am confident if it was understood it would receive the sanction of a majority of the voters. A system of county roads built of proper materials, and constructed to last more than a few years would be an object lesson to every township officer, and would do much to create a sentiment in favor of really good roads, even if they did cost considerable.

Eaton Co.

APOLLOS LONG.

## CO-OPERATIVE TELEPHONE COMPANIES POPULAR IN MICHIGAN.

## Switching Plan Gives Service Over Entire State.

Less than 30 years ago the telephone was considered a toy of little commercial value. Today over 160,000 are in use in Michigan alone—most of them are in cities and towns.

Owing to the denser population and greater demand, the companies naturally developed the cities first, and during this development period were compelled to neglect the farming districts. In order to supply the demand for farm telephones, which was slight, and from individuals located at great distances, the company would have had to spend such large sums that the farmers could not afford to pay the rates the company would have had to charge to insure a fair return for the service furnished and the necessary investment.

The Michigan State Telephone Company was the first to solve the farm telephone problem, and thru a special department organized for this branch of the business, have been so successful in aiding the farmers to secure service that today over 40,000 farmers in Michigan have telephones at very reasonable rates, and service as far reaching as the city business office.

The company, in order to build lines for the 190,000 farmers in the state, would have to secure capital thru sale of stock, which obviously means that the stockholders would expect dividends on their investment. Right of way, the laying out of the lines, the hauling of poles and material, the hiring and boarding of men, sent from distant points to build the lines, and the labor and livery to patrol and maintain the lines, would bring the cost up to a figure that would prohibit many from subscribing for service. The company saw that the farmers in their dull seasons could use their teams, and they and their employees could easily build and maintain the lines, saving a large item of expense. All that was required was a little advice and supervision in the construction and laying out of the lines and purchase of material and apparatus.

The Michigan Company prepared literature on the subject, selected trained men to meet the farmers to help them arrange and construct their lines, and to advise them about maintenance and operating. The company also arranged with the firm where its supplies were purchased, so that the farmers could buy at the same prices that the company buys, and also arranged to interchange connections with these farm lines.

The value of the service to the user increases every time a new telephone is connected, as it increases the number of people with whom he can talk, so this mutual interchange of business has helped both the farmer and the Michigan company—for the farmer connected with the Michigan Company can reach every point in his community, in the state, and a large part of the United States and Canada, and the Michigan Company can offer its town subscribers a larger calling list, and thus make its telephones of more value to its patrons and help to build up its large long distance system.

During the past winter farm line companies have been organized in all parts of the state, and now over 300 are connected. The local managers in the different exchanges, or the superintendent in Detroit, are prepared to meet and assist any individuals or companies who are interested. If you are interested, send a postal card to the Michigan State Telephone Co., Detroit, Michigan.

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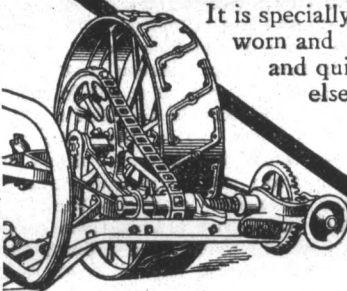
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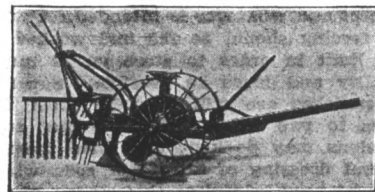
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## HORTICULTURE

WORK FOR MID-JUNE.

At this season the sun is high and its direct rays are especially hard on lettuce, and the protection afforded by liberal mulching will often add half to the value of the crop. Lawn clippings or any green material are valuable for this work and may be applied in liberal quantities. With this kind of material there is no danger of heating; but the reverse will be the result. Put it close about the plants and also along the rows, it will keep the ground cool and will be constantly adding nitrogen which is required in large quantities, for best results at this season of the year. Coarse manure is also good for the purpose as its leaching fertility will stimulate the plants to rapid growth which is essential to crispness.

Tomatoes also are included in this class; and even large areas will amply repay the cost of labor and material. For this crop it will pay either in wet or dry seasons; as in the former case it keeps them off the ground and largely insures against rotting and keeps the fruits free from sand or mud. In the latter case, especially if drouth is severe, it will be much protection and also lengthen the fruiting season. The present time is opportune for this work as it can be done now much easier and cheaper than after the vines have fallen down. Any kind of litter is good; but of course, material that will add fertility as well as afford protection is best. Taken at the right time, while the plants still stand upright, it can be rapidly done, and the expense and trouble will almost certainly be much more than repaid in the larger yield and better quality of crop. Cucumbers will be much benefited by the same treatment especially if the weather is hot and dry. In all cases, however, the size of plants or vines will largely determine the right time for doing the work. As long as the size of plants will admit of working close to the rows it is usually wise to keep up the cultivation unless drouth begins to pinch; then the mulching will benefit more than culture if large enough quantities are used. But in any case, it should be put on before running vines are too much spread or other vines begin to fall down.

There are always more or less of these lying around, and there is no time like the present to get them, or some of them, finished up and out of the way. In thinning the beets or mangels we shall find a good many vacant places and while we find it necessary to thin out in many places, others require to be filled in. So when pulling out where they are too thick, save the best of them for filling up vacancies. They will stand transplanting with very little loss, only clip back the tops below the leaves and set them carefully. They will make good growth and are so much of an improvement over thin and straggling rows. The same treatment is also good for the onion rows. Pull them, carefully clipping both rootlets and tops. The transplanted ones will make good bulbs by fall, and the vacant places had better be treated thus than left idle.

Keep the seed stalks out of the rhu-barb. One stalk, if allowed to mature the seed, will debilitate the plant more than all the edible stalks that the clump will bear. Whenever the plants are thru bearing it is a good plan to work up the soil especially around the hills and if the poultry have access to the patch, it is a good plan to induce them to work in the ground as they are helpful in gathering up the curculios cultivation sufficient to keep out grass and weeds is helpful and whatever is intended for winter forcing should be fed and worked to the limit in order to store up as much vitality and force as possible. Sowings of radishes are still in order from ten days to two weeks apart, so that successions may be kept up. Give them a liberal dressing of nitrate of soda which will be very helpful at this season of the year. A little later the summer and autumn varieties should take the place of the early sorts, as they will stand the hot weather without becoming pithy or tough. Avoid the use of rank manure, or sowing on ground where they or any of the cruciferae family were grown the previous year as these precautions are the best known safeguards against the maggots which are liable to infest the crop at this season of the year.

Wayne Co.

J. E. MORSE.

### WORKINGS OF THE COMPULSORY SPRAYING LAW.

In this article I do not wish to criticize the compulsory spraying law or the appointment of inspectors to see that the law is enforced, but I wish to call attention to a few conditions where the law does not work as intended. I will give a little incident that has just happened to illustrate the point. This week a farmer called to see me in regard to getting material to spray his orchard for the scale. He informed me that the inspector had sent him notice to spray his trees about two weeks before. This would have been the last week it would have been safe to spray for scale as the buds were getting pretty well opened up. The next week rains and winds prevailed most of the week. On Saturday, May 15, the inspector sent another notice directing him to spray for the San Jose scale within ten days. He then came to me for material. I attempted to explain that it was too late to spray for the scale with any effect without injuring the foliage and blossoms, the trees being in blossom. I advised him to go to the inspector and explain this to him, and tell him that the notice was so short he had neglected to spray until too late, but that the following season he would do the right thing, and cut his poor trees and spray the rest. This he concluded to do, and went away. The next day he was back again, saying he had talked with the inspector and the latter was going to force him to spray, and would not let him off. He did not want trouble and that best to go thru the operation in as slack a way as possible to satisfy the inspector and neighbors. He stated that he did not care for most of his trees as they were old and rotten, but he did not have the time to cut them now. He would squirt some weak sulfur wash at these and take care not to hit the good trees. So he went to the druggist for sulfur, but the druggist told him that a Bordeaux-Paris green preparation he had for sale was just as good as the lime-sulfur for scale and everything else, so he purchased some of this. That evening he talked with a neighbor who sprays and found that his material was useless for the scale, so the next day he made a third trip to see me, and I finally let him have some prepared lime-sulfur solution after assuring myself that he would not damage good trees with it.

Now this man had spent at least three half days right in corn planting when time was precious, in getting material to spray trees, which operation could not possibly do any good and might do considerable damage. I have only the farmer's side of the question, and perhaps he was as hard-headed as the inspector. It was quite plain that neither knew much about spraying, but one wished to show his authority, and perhaps the other to evade it. The result was an expense to the township and to the owner of the trees, with no benefit and perhaps damage, and possibly hard feeling among neighbors.

This case may be an extreme, but the facts are that many of the inspectors in townships where little attention is paid to fruit are incompetent men, first, because there are few if any taxpayers of the township that are practical fruit growers and capable of filling the office as they should, and second, because those who might fill the office satisfactorily will not qualify. It would seem to me that if the state inspector or his deputies could advise as to the appointment, rather than leave it entirely to the township board the results would be more satisfactory.

With qualified inspectors and time to educate the people to the necessity of spraying and its results, and the importance of checking contagious diseases, the law works out satisfactorily, and it is likely that in time it will prove effective in non-fruit-growing communities.

Let us present another side of the picture. Another farmer has 25 acres of apple orchard five years old. He has purchased a sprayer and says it is fun to spray them, and he will spray every time I say he ought to. He declares he has the finest orchard in the county. Now who will make a success of spraying, number one, or number two?

Calhoun Co.

S. B. HARTMAN.

The season for spraying for the codling moth is on, and every farmer should strive to spray his fruit trees or get them sprayed at this time if possible. If he can not possibly do this he should spray by the middle of June, tho he can not expect perfect apples if he has not sprayed before this time.

### What would you take?

Suppose you were required to live for a certain length of time on only one article of food. Which would you choose?

There is one food that stands without a rival for such a test. Quaker Oats is that one. It furnishes more strength with least wear and tear on the digestive organs than any other food. You'll feel well and strong at the end of the time. Try it. Don't stop eating other things, but eat more Quaker Oats and you'll notice the gain in strength.

The regular size package of Quaker Oats sells at 10c, the large family size packages cost 25c, and the family size package containing a piece of beautiful china for the table costs 30c. All grocers sell these.

Eat Quaker Oats daily for breakfast, it strengthens you for the day's work.

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#### CLUB DISCUSSIONS.

**Food for the Farmer.**—The Perry-Bennington Farmers' Club, of Shiawassee Co., met at the home of Mr. and Mrs. James Ralph, in Morrice, on Friday, May 7. The club now holds afternoon meetings. About 3:30 the meeting was called to order by President Morrice. The literary and musical numbers were both numerous and good. Mrs. Cooper in her pleasing manner, read a paper on "Household Conveniences." Miss Pearl Macdonald, an instructor from the M. A. C., gave a helpful and practical talk on "Food." She gave the different elements that various foods contain. The foods needed in keeping the body in good condition. She told if we were temperate in our eating we would be able to take almost any food. If certain food agrees with us, it is all right to eat it, even if it has been classed with the indigestible. All vegetables are very nourishing and if some didn't like them they could learn to eat them if they kept trying. She told we could learn to create an appetite for anything even if we did not like it. In buying meat we are apt to call for the fine cuts, such as sirloin, porterhouse, etc., but if the tougher meat is prepared right, it is more nutritious and more of a muscle builder. There is no food value in fruits for they contain mostly water, except bananas, raisins and dates, which are real nourishing. She said the harm in tea and coffee or cocoa was drinking it too strong and too much at a time. Methods were given in preparing different foods to make them digestible.

**The Question Box** brot out some interesting discussions on the following subjects: "Is it a fair comparison to compare boarding house fare with the farmers' bill of fare?" Mrs. Morrice told not because the farmers have more to do with in getting up a meal and have nearly everything fresh. "Is it profitable to sow barley as late as this?" Mr. Black told it would grow all right. "How should starch be made so when ironing it will not stick to the irons?" Miss Macdonald said it should not be made too thick and paraffin or a little kerosene put in would help. After a sumptuous supper, including ice cream and cake, the club adjourned to meet in June with Mr. and Mrs. Beckley. A good program is being prepared.

**Better Roads and How to Get Them.**—The May meeting of the Salem Farmers' Club was held at the home of Mr. and Mrs. Thos. Hammond. Good music was furnished by Mr. and Mrs. F. Lovelace. Mrs. Franc Smith gave a recitation, "Little Pilgrim," and a timely reading was given by Mrs. M. Hamilton, on "The Value of System, or a Man's Clearing House." The subject of "Better Roads and How to Get Them," was then discussed by the club, opened by Chas. Ross and Rev. J. Bettis. A good many joined in the discussion. All were in favor of better roads. How to get them is still a matter of discussion. A resolution was sent to our representative at Lansing, H. Wirt, Newkirk, to this effect: "The members of Salem Farmers' Club are opposed to present township road law, and are in favor of dividing the township into four sections." After music, club adjourned to meet in June with Mr. and Mrs. F. Lovelace.—H. C. Thompson, Rep.

**Home or School Training.**—The new home of Mr. and Mrs. A. B. Cook was the scene of the May meeting of the Maple River Farmers' Club. A large number of visiting friends from the city and other clubs to the extent of over a hundred and fifty, enjoyed the excellent program and social entertainment. The usual lively and spirited discussion of important questions made the occasion a very pleasant monthly event. President E. N. Waugh called the meeting together. Devotional exercises were conducted by Rev. Hanks. Report of the secretary showed a large number of members present despite the very busy season. Mrs. John Bilhimer read a very excellent paper on "Which is More Important—Girls' Training at Home or in School?" Mrs. Bilhimer thinks a girl's training should begin at home where the influence is pure and wholesome. Her first training should be cooking. A college education is good, but home training better.

"The South as I Saw It," was very entertainingly presented by Mrs. A. L. Chandler. The south has many attractions and advantages. Many of the cities of the south will shame those in the north. Strangers receive a hearty welcome at the churches. The principal

industries of the south are fishing, raising fruit and vegetables. Very little stock of any kind is maintained.

**Patriotic Subjects.**—Mrs. C. S. Richardson read a very able prepared paper on "The Mistress of the White House." She was born 46 years ago and educated in Cincinnati. In music Mrs. Taft is unexcelled. She is a lovable woman and always in company with her husband. Rev. C. H. Hanks spoke on "The Patriotism for the Day." Decoration is one of the most sacred days of the whole year. It is not enough that we follow in the footsteps of our fathers; we must go farther. Patriotism demands bravery. A character pure, wholesome and above reproach. Miss Otie Cook read in a very pleasing manner a poem written by Will Carleton entitled, "The Army of the Dead," which was very well received.

"Parcels Post" was spoken of by A. L. Chandler who advised a limited parcel post merely as an extension of the system already in vogue. Mr. Chandler believes that a parcels post would be of great service to the farmers and would not in any way conflict with the regular mail, if not carried too far. Others spoke on the topic, some favoring the new reform while others were undecided. The meeting was then adjourned for supper which was a very attractive and important part of the afternoon program.

## GRANGE

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

#### THE JUNE PROGRAMS.

##### Suggestions for Second Meeting.

"I believe all children's good,  
If they're only understood.  
Even bad ones, 'pears to me,  
'S jest as good as they kin be."

**Children's Day Program.**—In charge of Flora of the Grange, who may make it a day of real joy to the little ones of the neighborhood, with refreshments at the close. Let the children furnish a program of recitations, dialogues, fancy drills, flower exercises and songs. For the older peoples' part, use the topic: "The Child—V. His School and Home Conditions."

#### A REAL "SOCIAL CENTER."

The meeting of Lapeer Pomona with Burnside Grange, No. 1, on June 3, recalls the fact that at this location are clustered what are commonly called the forces necessary for making an ideal



A Lapeer County Social Center—Church, Schoolhouse and Burnside Grange Hall.

rural community. Here, side by side, in the open country, are found the church, the schoolhouse and the Grange hall. The accompanying cut shows the situation and suggests the further opportunities that lie before this enterprising people. That it is an enterprising neighborhood, the homes and farms testify even to the stranger in their midst. I like to look forward in fancy and see this picture softened by the growth of trees, shrubs and vines that will be planted about these buildings; and see also the provisions made for outdoor recreation of the boys and girls by apparatus erected on the school grounds. Such a picture, however, is only a future promise of the present beginning which is now in reality a "social center," equipped to serve all phases of the community's welfare.

JENNIE BUELL.

#### POMONA MEETINGS.

**Charlevoix County.**  
Charlevoix Pomona met with Marion Center Grange, Thursday, June 3. Altho a very busy season, the attendance ranged from 140 to 150. The morning session was called to order by Worthy Master Ward at 11:30 and the routine business of Pomona disposed of before dinner. After dinner reports were read from a majority of the Granges of the county, all except one reporting themselves in a highly prosperous condition. The address of the afternoon was delivered by Bro. J. C. Ketcham, of Barry Co., who took for his subject, "Rural Progress." The universal comment was

that it was the best address on the subject ever heard by a Pomona audience.

"What the coming of State Grange to Traverse City means to Charlevoix Co." was the subject assigned to W. J. Smith, lecturer of Maple Grove Grange, who showed how not only the Grange would receive vast benefit but the entire county and all of northern Michigan. Worthy Master Ward explained the progress of the movement to take 500 Charlevoix Patrons to Traverse City, and the success of the movement now seems assured. A committee, headed by Bro. D. S. Payton, was named to prepare an exhibit of Charlevoix county products to take to Traverse City next December.

After supper the third degree was exemplified by South Arm's degree team in a manner which brot out all the beauties of Grange ritualistic work, after which the fifth degree was conferred in full form on a class of 31, by a picked degree team from Marion Center Grange.

The next meeting will be held in August with Maple Grove Grange, which was declared the banner Grange of the county.

Charlevoix County Pomona still holds the proud record of being the largest Pomona west of Pennsylvania, and at each meeting confers the degree on large classes. Bro. E. B. Ward, our master, has served almost continuously since its organization and it will be a glowing tribute to his work in behalf of the Order when, next December, he goes to Traverse City at the head of 500 enthusiastic Patrons from a county in which nearly every Grange owns its hall and is alive and pushing Grange work in all lines.—Glenn M. Dubois, Lect.

**Silver Lake Grange,** located at Monroe Center, Grand Traverse Co., is prospering. This is one of the older Granges in the county, it having been organized in 1876. For many years it did a good work. Then interest lagged and meetings ceased to be held. The past winter the old members and some new ones were gotten together and on March 4 the Grange was reorganized. At the last meeting there was an attendance of 14. Three candidates were initiated in the third and fourth degrees and five applications for membership were received. This Grange has bright promises for the future because of the large number of young people who are taking an interest in its welfare.

**Discuss Practical Farm Topics.**—At the last meeting of Ithaca Grange, of Gratiot Co., the following questions were read and discussed: "What is the best food for young chicks and how to care for them." This was answered principally by the sisters, and the brothers that they had the laugh on them because nearly every one had a different plan of care and different kind of food. However, the scale was turned when the brothers commenced to prepare the ground and to cut and plant potatoes. Every man had a plan of his own and that it best. Some of the ground was check-rowed and some was drilled in rows one way. The seed ranged



## No Man Is Stronger Than His Stomach

A strong man is strong all over. No man can be strong who is suffering from weak stomach with its consequent indigestion, or from some other disease of the stomach and its associated organs, which impairs digestion and nutrition. For when the stomach is weak or diseased there is a loss of the nutrition contained in food, which is the source of all physical strength. When a man "doesn't feel just right," when he doesn't sleep well, has an uncomfortable feeling in the stomach after eating, is languid, nervous, irritable and despondent, he is losing the nutrition needed to make strength.

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## MARKETS

## DETROIT WHOLESALE MARKETS.

June 9, 1909.

## Grain and Seeds.

**Wheat.**—The average value of wheat the past week has been above the average for the previous period, but no new record for the season was made. There has been general improvement in the crop during the few days just past, Michigan's outlook being just now as promising as it has been in many years; but the plants will mature late and country millers will persist in having the first marketings so that dealers at large centers are not counting on getting any considerable amount of the new crop with which to fight the bulls on the July option, where much of the market interest is now focused. Government crop report is bullish on winter wheat but gives the bears courage in the spring wheat sections. One year ago the price paid for No. 2 red wheat was 96c per bu. Quotations for the past week are:

	No. 2	No. 1	No. 3	Red.	White.	Red.	July.	Sept.
Thurs.	1.57	1.57	1.54	1.20½	1.13			
Fri.	1.56	1.56	1.53	1.20	1.12½			
Sat.	1.55	1.55	1.52	1.20	1.12½			
Mon.	1.55	1.55	1.52	1.20	1.12½			
Tues.	1.56	1.56	1.53	1.21	1.13½			
Wed.	1.57	1.57	1.54	1.20½	1.13½			

**Corn.**—The corn situation has not improved from the standpoint of the consumer. The depletion of the supply, the invasion of cutworms and damage from excessive rains have kept the bears anxious and allowed the bulls to secure higher figures the past week. Planting has been generally delayed and in many sections where the crop was gotten in the ground at a seasonable date unfavorable weather has stunted the young plants. Last year the buyers were paying 74c for No. 3 corn. Quotations are:

	No. 3	Yellow.
Thursday	77	78
Friday	77½	78½
Saturday	77½	78½
Monday	77½	78½
Tuesday	77	78
Wednesday	77½	78½

**Oats.**—The oat situation has become a little more bearable to buyers since the government crop report has given the public notice that improvement has taken place in many sections since a month ago. This year's crop is estimated by the government experts at 1,034,000,000 bu. A year ago we were paying 55½c for No. 3 white oats. Quotations are:

	No. 3 White.
Thursday	62½
Friday	62½
Saturday	62½
Monday	62½
Tuesday	62½
Wednesday	62½

**Beans.**—No business is transpiring in this department of the market and the following nominal quotations show no change since a week ago:

	Cash.	Oct.
Thursday	\$2.55	\$2.05
Friday	2.55	2.05
Saturday	2.55	2.05
Monday	2.55	2.05
Tuesday	2.55	2.05
Wednesday	2.55	2.05

**Cloverseed.**—The activity of this trade is confined almost entirely to futures. Prices are higher. Crop reports are a little discouraging to the farmers. Quotations are:

	Prime Spot.	Oct.	March.
Thursday	\$6.90	\$6.75	\$6.90
Friday	6.10	6.85	7.00
Saturday	6.10	6.85	7.00
Monday	6.95	7.10	7.15
Tuesday	7.00	7.15	7.15
Wednesday	7.10	7.15	7.15

**Rye.**—There is fair demand and no change in price. The price is 92c for cash No. 2, last week's quotation.

## Visible Supply of Grain.

	This week.	Last week.
Wheat	17,536,000	19,786,000
Corn	2,883,000	2,841,000
Oats	7,499,000	7,462,000
Rye	219,000	235,000
Barley	944,000	1,300,000

## Flour, Feed, Provisions, Etc.

**Flour.**—Prices steady. Demand is good. Quotations are as follows:

Clear	\$6.30
Straight	6.40
Patent Michigan	6.55
Ordinary Patent	6.10

**Hay and Straw.**—Values remain at last week's level. Carlot prices on track are: No. 1 timothy, new, \$14@14.50; No. 2 timothy, \$13@13.50; clover, mixed, \$12; rye straw, \$10@10.50; wheat and oat straw, \$8@9 per ton.

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

**Potatoes.**—The old potato deal is not looking good to those who failed to sell a few weeks ago. Prices are down from last week and the trading is not exciting at the decline. Good stock is quoted at 75@80c per bu. New potatoes from the south are quoted at \$1.65@1.70 per bu.

**Provisions.**—Family pork, \$21@22; mess pork, \$19.50; light short clear, \$20; heavy short clear, \$22.50; pure lard, 12c; bacon, 15c; shoulders, 10c; smoked hams, 13½c; picnic hams, 9½c.

## Dairy and Poultry Products.

**Butter.**—The leading butter markets have been firm several days back and advances in quotations made. Prices here are about 1½c above the figures of last week. The following are the quotations for the week: Extra creamery butter, 26½c; firsts, 25½c; dairy, 20c; packing, 18½c per lb.

**Eggs.**—The demand for eggs continues firm. The offerings are large and market is steady with prices a fraction lower than last week. Extra fresh eggs, case count and cases included are now quoted at 20½c per dozen.

**Poultry.**—Nothing is transpiring to excite interest in poultry. Demand is small and supply is not crowding. Prices are lower. Quotations are: Hens, 14@14½c; roosters, 10c; fowls, 14½c; ducks, 14@15c; geese, 8@9c; turkeys, 16@17c; broilers, 24@25c.

**Cheese.**—New Michigan, 13½@14c; York state, old, 17@18c; new, 14c; limburger, fancy old, 17@18c; new, 14c; schwitzer, fancy old, 20@21c; brick cream, 16c lb.

## Fruits and Vegetables.

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

**Onions.**—Bermudas, \$1.50 per crate.

**Strawberries.**—24-ct. cases, \$3@3.25.

**Gooseberries.**—Per bu, \$4.

**Vegetables.**—Green onions, 10c per doz; radishes, 10@12c per doz; cucumbers, 50 @60c per doz; lettuce, 50c per bu, head lettuce, \$2@2.25 per hamper; water-cress, 25c per doz; spinach, 50c per bu; parsnips, 90c per bu; oyster plant, 40c per doz; asparagus, 40@50c per doz; rhubarb, 40@50c per doz; green peas, \$1.25@1.50 per bu.

## OTHER MARKETS.

## Grand Rapids.

**Creamery butter** is up a cent and a half this week, while dairy advances 1c. The egg market is unchanged. Dressed hogs are a little higher, sales being reported at 9½c. Poultry is off 2@3c per lb. Prices paid for early green stuffs on the city market ranged as follows: Beet greens, 40@50c bu; asparagus, 25c doz; green onions, black seed, 10c doz; radishes, 7@8c doz. First southern Michigan strawberries showed up in this market Tuesday, and 16-qt. crates were sold by jobbers at \$2@2.25. The berries were smaller than southern stock, but have a better flavor. With favorable weather home grown berries will be in next week. In grains, the only change noted is in an advance of wheat 3c.

**Quotations follow:**  
Grains.—Wheat, \$1.55; corn, 79c; oats, 61c; buckwheat, 60c per bu; rye, 80c.

Beans.—Handpicked, \$2.50 per bu.

Butter.—Buying prices, Dairy, No. 1.

18½@19c; creamery in tubs, 26c; prints, 26½c per lb.

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

**Eggs.**—Case count, 19@19½c.

**Potatoes.**—70@75c per bu.

**Cattle.**—Cows, \$2.50@4 per cwt; steers and heifers, best quality, 3@5½c; dressed mutton, 9@10c; dressed veal, 6@9c; dressed beef, cows, 5@7c; steers and heifers, 7½@9½c.

**Hogs.**—Dressed, 9½c.

**Live Poultry.**—Fowls, 11@12c; roosters, 7@8c; turkeys, 18@19c; broilers, 1½ to 2 lbs., 25@28c.

## New York.

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

**Eggs.**—Easier. Western firsts to extras, 21@23c; seconds, 20@20½c per doz.

**Poultry.**—Alive, weak and lower. Western chickens, broilers, 22@25c; fowls, 16c; turkeys, 13c. Dressed, quiet.

**Grain.**—Wheat, No. 2 red, \$1.51 per bu; corn, No. 2, 86c; oats, mixed, 62½c.

**Potatoes.**—Per 180 lbs., \$2.62@2.75.

## Pittsburg.

**Potatoes.**—Michigan, 80@85c per bu.

**Apples.**—Steady. Baldwins, \$5.25@6;

Spy, \$5@5.50; Spitzenburg, \$5@5.50.

**Eggs.**—Western firsts, 22c; do. extras, 22@22½c; current receipts, 21c.

**Butter.**—Creamery, 25@26c; prints, 24½ @25c per lb.

## Chicago.

**Wheat.**—No. 2 red, \$1.55@1.60; July, \$1.19½; Sept., \$1.10½.

**Corn.**—No. 3, 75½c; July, 72½c; Sept., 69½c.

**Oats.**—No. 3 white, 57@58½c; July, 53½c; Sept., 44½c.

**Beans.**—Pea beans, handpicked, \$2.65 per bu. for choice; good, \$2.50@2.60; red kidney, \$2@2.15 for old.

**Butter.**—Higher. Creameries, 23@27c; dairies, 20½@24½c.

**Eggs.**—Easy. Firsts, 19½c; prime firsts, 21½c per doz.

**Potatoes.**—Steady. Carlots in bulk, \$5 @91c for average offerings.

## Elgin.

**Butter.**—Market continues firm at 26½c per lb., which is an advance of 1½c over the price of last week. Sales for the week amounted to 876,600 lbs.

## Boston.

**Wool.**—The eagerness with which manufacturers and brokers have sought wool and the lack of support from old clips, are steadily pushing prices to higher levels. For the first time since the panic woolen and worsted goods are on about the same basis. It is reported that fully 90 per cent of the present season's crop is in the hands of dealers which makes it rather certain that values will not decline from the present standard. Quotations for the leading domestic grades are: Ohio and Pennsylvania fleeces: XX, 35@36c; X, 33@34c; No. 1 washed, 40@41c; No. 2 washed, 40@41c; fine unwashed, 27@28c; fine unmerchantable, 30 @31c; ½-blood combing, 35@36c; ¾-blood combing, 35@36c; ¼-blood combing, 34@36c; delaine washed, 40@42c; delaine unwashed, 33@34c. Michigan, Wisconsin and New York fleeces: Fine unwashed, 25@26c; delaine unwashed, 31@32c; ½-blood unwashed, 34@35c; ¾-blood unwashed, 34@35c; ¼-blood, 33@34c. Kentucky, Indiana and Missouri: ¾-blood, 35@36c; ¼-blood, 36@37c.

## THE LIVE STOCK MARKETS.

## Buffalo.

June 7, 1909.

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

Receipts of sale stock here today as follows: Cattle, 130 loads; hogs, 10,000 head; sheep and lambs, 5,000; calves, 2,000 head.

We had a good supply of good cattle here today. We do not look for as many again this season. If the runs in Chicago let up we look for the trade to be a little better next week. One extra good load of cattle brot \$7.25 today. The heaviest cattle were the hardest to sell and most of them went from \$6.50@6.75. Fat cows sold strong quarter lower today and bulls were from 25@50c per hundred off. The supply of stockers today was light and they sold about steady. Fresh cows and springers also sold steady.

We quote: Best export steers, \$6.75@7; best 1,200 to 1,300 lb. shipping steers, \$6.50@6.80; best 1,000 to 1,100 lb. do. \$6@6.40; light butcher steers, \$5.50@5.75; best fat cows, \$5@5.25; fair to good, \$4.25@4.50; trimmers, \$2.75@3; best fat heifers, \$6@6.25; light fat heifers, \$4.75@5.25; best bulls, \$4.75@5; bologna bulls, \$4@4.50; best feeding steers, 800 to 900 lb. dehorned, \$4.50@4.75; 700 to 750 lb. dehorned stockers, \$4.25@4.50; common stockers, \$3.50@4; fresh cows and springers, \$4.50@5.50; medium, \$3.50@4.50; common, \$2.50@3.

We still advise caution in buying the common and grassy kinds of cattle as there is a wide spread in prices.

The hog market today opened about steady at Saturday's prices, no choice heavy hogs being on the market. Good many hogs today showed grass and this kind is very hard to sell. We look for a liberal run of hogs the balance of this week and think the prospects barely steady.

Medium and heavy, \$7.95@8; mixed, \$7.90@7.95; best yorkers, \$7.65@7.85; light yorkers, \$7.50@7.60; pigs, \$7.30@7.40; roughs, \$6.75@6.80; stags, \$5.50@5.75.

The lamb market today was active while sheep were quarter lower than Saturday. We look for steady prices the balance of the week.

Spring lambs, \$8.75@9; fair to good, \$7@8.50; culls, \$5.50@6.50; skin culls, \$4 @4.50; yearlings, \$7.50@8; wethers, \$6 @6.25; ewes, \$5@5.50; cull sheep, \$2@4; best calves, \$8@8.25; fair to good, \$7@7.75; heavy, \$4@5.

## Chicago.

June 7, 1909.

Received today: Cattle, 19,000; Hogs, 49,000; Sheep, 12,000. Same day last year: 24,838; 39,274; 14,000. Received last week: 47,777; 129,605; 69,876. Same week last year: 32,607; 128,134; 81,131.

Cattle were offered too liberally last week for the requirements of the trade, and prices suffered average reductions of 10@25c, while grassy cows and heifers were off 25@40c. Grassy stock is discriminated against and promises to rule still lower. Heavy steers are now in smaller demand and buyers want the lighter weights that are good and fat.

Beef steers have been selling largely at \$6@6.90, with the cheaper class of light steers going at \$5@6, and the best class of shipping cattle of strong weights at \$6.90@7.25. Good fat cattle were purchased freely at \$6.50@6.85, and a medium grade at \$6.10@6.45, 1,275 to 1,400-lb. export steers having a moderate sale at \$6.35@6.65. Distillery-fed steers went at \$6.65@7, and Texas steers at \$5.90@6.40.

Cows and heifers sold at \$3.55@6.50, stock showing a pasture finish going as much as 40c below the recent high time, while sales were made of canners and cutters at \$2@3.50. Bulls had quite a slump, selling at \$3@5.30, while calves found buyers at \$3@7.75, according to quality.

Good pasture induces owners of unfinished cattle to keep them on the farm, and stockers and feeders have sold at \$3.30@5.65, high prices determining many stockmen from loading up. Sellers claimed that it was almost impossible to sell milch cows, even at reductions of \$5@7 per head, sales ranging at \$25@55 each. Beef cattle of the less attractive kind will work lower in the future in all probability, but fat finished beefs will naturally sell well.

Today's market was animated for the better class and rather slow for others, prices ruling about steady.

Nothing has happened in the hog market of late to change the healthy undertone that has so long been witnessed, and stockmen need have no apprehensions regarding the future. The requirements of buyers continue quite large, and even liberal receipts have been purchased at advanced prices. There is a shortage in the country, and so long as the consumption of fresh pork and cured meats is so heavy as a result of their relative cheapness compared with other meats the raw material will sell much higher than in most former years. Not only is there a good outlet for the better class of shipping hogs of good weight, but even the weighty pigs are having a good demand for cutting up into fresh pork.

For some weeks hogs have been marketed heavier in weight, and the recent average has been 218 lbs., but this is less than in some recent years. Some farmers are still selling off their young hogs in order to save their corn, but this seems to be a mistake, even if feed is unusually dear. Grassy hogs are discriminated against. The market today was active and steady to a nickel lower, with sales at \$7.05@7.80, and pigs bringing \$5.85@7. Top hogs were the highest of the year.

During the last few days packers have forced sensational declines in sheep and lambs, but this was natural after seeing fancy wooled Colorado lambs sell early last week at \$9.90 and shorn Colorado at \$8.90. The packers received large supplies of Tennessee and Kentucky spring lambs consigned to them direct from Louisville, having sent buyers some time ago to that market. Today's re-

ceipts were small and embraced 5,000 lambs received by packers. Lots offered on the open market were mostly inferior in quality, fully 80 per cent being of that description. Prices were steady at the recent decline, with ewes salable at \$3@6, wethers at \$5@6.50, yearlings at \$6.50@7.50, clipped lambs at \$4@8.50 and spring lambs at \$6@9. Prospects are better for good prices for spring lambs than for sheep this summer.

Horses are in smaller demand than a short time ago, it being the transition period from spring to summer, and larger offerings than usual are apt to cause weakness in prices. Drivers are fairly active at \$150@350 per head, and gaited well-mannered saddlers are having a fair sale at \$175@400. Good drafters are wanted at \$175@215, with a better class weighing 1,700 to 1,800 lbs. going at \$225@260, while a few finely matched pairs have brot \$450@540. Feeders have a fair outlet at \$165@200, and chunks move slowly at \$140@200, some recent consignments having gone \$15@25 below their prices paid a month ago.

## LIVE STOCK NOTES.

Nothing has transpired to shake the confidence in hogs shown for a long time by believers in the future of the market. It may be repeated that there is a real shortage in the hog supply, both thruout the east and the west and, so far as can be discerned from a careful investigation, high prices are assured for the entire summer season. Stockmen arriving in Chicago and other western markets continue to report no large supplies of hogs left in their respective localities, but some gain in recent receipts was a foregone conclusion after farmers finished their corn planting. The eastern shippers in the Chicago market have long been conspicuous buyers of the better class of hogs, and the strength in prices is in great measure attributable to their liberal purchases.

Warm weather, when it makes its first appearance, works unfavorably for the sale of heavy cattle, and of late these have been among the first to show weakness in prices, especially consignments that could not be classed as choice beefs, such as are taken regularly in the Chicago market for eastern points, such as Boston, New York and Pittsburg. Handy fat little yearlings have come into general favor with buyers, for the popular taste runs strongly on light cuts of beef, owing partly to warm weather and more perhaps to the great dearth of beef everywhere. The consumption of beef is larger than it was a few months ago, but it is still much below normal, and if as many cattle were marketed as in former prosperous years cattle prices would rule very much below the figures now seen every week. Grassy cattle are being offered in steadily increasing volume and are discriminated against strongly by buyers, and this class will undoubtedly suffer further declines in the near future. As for good fat corn-fed cattle, light supplies for July, August and September are expected, it being the prevailing opinion that fewer by far will be shipped to market than for years and that there will be a good demand at a high range of prices. It is almost a certainty that the small amount of summer feeding will make high prices and will result in substantial profits.

This has been a great season for marketing calves, liberal numbers having been sent from the Illinois, Wisconsin and Michigan dairying sections, while big supplies have gone from Texas to Kansas City. Milk sells high, and naturally the dairymen are anxious to get rid of them as soon as possible. Fortunately for sellers, there has been an excellent demand for good veal calves at fairly high prices, considering the heavy offerings, but a great many heavy and inferior calves have sold unsatisfactorily.

## THE IMPROVED TYPE OF PEA OR NAVY BEAN.

There has been quite a lot said from time to time, thru the agricultural papers, as well as some of the daily papers, about this type of pea or navy bean being introduced by the Alfred J. Brown Seed Co., of Grand Rapids, Mich. Any seed grower of twenty-five years experience could hardly afford to recommend or advise farmers, who make their bean crop one of their money crops, to plant this new and improved type unless they knew this bean had many advantages over the common pea or navy bean for which Michigan has been known for producing the best quality for many years past. While it is true that Michigan stands at the top for high grade pea beans, it is quite possible for any expert in bean growing to produce, by careful selection, an improved type of pea or navy bean that is worth a lot of money to bean growers thruout the state. The Brown Seed Co., who have been carefully growing this bean for the past five years, do not claim that the bean itself is any different in point of flavor, baking qualities or canning quality, except that it is more uniform in size of seed, more uniform in ripening, earlier to harvest, and more productive, and the seed beans are pure white. The habit of growth is not unlike common pea or navy beans grown thruout the state, except that the plant has a tendency to carry its pods well upon the plant so that few, if any, come in contact with the ground, and very little or no handpicking is necessary. The time for planting and cultivation is just the same as other pea or navy beans.



## 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.

June 10, 1909.

## Cattle.

Receipts, 625. Good grades steady; common, thin cows and light grades 25@35c lower.

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

Roe Com. Co. sold Rattkowsky 5 butchers av 816 at \$4, 2 do av 315 at \$3; to Prince 4 stockers av 750 at \$4.30, 3 do av 646 at \$4.25, 2 do av 440 at \$3; to Haley 1 do weighing 410 at \$3.50; to Fish 1 cow weighing 870 at \$3; to Regan 7 butchers av 600 at \$4, 2 cows av 960 at \$3.50; to Goose 5 cows av 1,036 at \$3.50; to Caplis 4 do av 1,117 at \$4.50, 3 do av 990 at \$4.50; to Prince 1 stocker weighing 740 at \$4.50; to Cook 21 mixed butchers av 900 at \$5.50.

Spicer, M. & R. sold Austin 6 cows av 938 at \$3.25; to Sullivan P. Co. 2 do av 875 at \$2.50, 23 steers av 1,011 at \$5.65; to Young 2 cows av 930 at \$3.50, 8 steers and heifers av 893 at \$5.50, 2 cows av 855 at \$3, 1 steer weighing 680 at \$4.25; to Mich. B. Co. 2 bulls av 1,440 at \$4.50, 1 do weighing 790 at \$4, 4 cows av 822 at \$4, 1 cow weighing 1,120 at \$4.50, 6 do av 955 at \$4.40, 2 bull and cow av 1,110 at \$4, 2 do av 1,050 at \$4, 3 steers av 850 at \$5.50, 6 do av 991 at \$5.75, 2 do av 865 at \$5.75, 23 steers and heifers av 800 at \$5.70; to Rattkowsky 2 cows av 870 at \$3.40; to Dombeski 1 bull weighing 570 at \$3.50, 4 canners av 700 at \$2.50; to Bresnahan 2 steers av 575 at \$4, 1 feeder weighing 760 at \$4.75; to Bresnahan 5 canners av 864 at \$2.60; to Sullivan P. Co. 4 cows av 950 at \$4.50, 1 bull weighing 1,400 at \$4.50; to Hammond, S. & Co. 2 do av 1,140 at \$4.25; to Mich. B. Co. 10 steers av 840 at \$5.50; to Fry 2 do av 800 at \$4.75, 2 do av 840 at \$5.25; to Regan 3 do av 400 at \$4; to Youngs 2 cows av 1,020 at \$3.25, 1 do weighing 850 at \$3.25, 1 steer weighing 700 at \$5.

Bishop, B. & H. sold Mich. Beef Co. 3 steers av 793 at \$4.75, 13 do av 890 at \$5.75, 1 do weighing 1,010 at \$5.75, 1 bull weighing 1,450 at \$4.50, 1 do weighing 730 at \$3, 19 steers av 705 at \$5, 4 do av 542 at \$4.50, 1 heifer weighing 650 at \$4.50; to Prince 2 stockers av 675 at \$4.50; to Thompson Bros. 2 bulls av 1,085 at \$4; to Huston-26 feeders av 1,014 at \$4.85; to Hammond, S. & Co. 2 bulls av 1,260 at \$4.25, 19 steers av 982 at \$5.75; to Sullivan P. Co. 1 bull weighing 1,460 at \$4.25, 3 cows av 976 at \$3.50, 4 steers av 1,000 at \$5.90, 2 do av 1,060 at \$4.75; to Newton B. Co. 5 butchers av 988 at \$4.50, 1 cow weighing 960 at \$4, 3 steers av 1,093 at \$6.35.

Kendall sold Marx 1 bull weighing 1,070 at \$4.40, 2 do av 1,040 at \$4.40, 2 steers av 825 at \$6.

Kalahar sold Mich. B. Co. 3 steers av 723 at \$5.50, 2 cows av 990 at \$4.

Smith sold Hammond, S. & Co. 3 steers av 856 at \$5.40.

Mohns sold Fitzpatrick Bros. 2 cows av 1,000 at \$4, 1 heifer weighing 800 at \$5.

Sharp sold Sullivan P. Co. 2 cows av 1,000 at \$4, 3 steers av 1,031 at \$5.75.

Haley sold same 1 do weighing 970 at \$5.50, 2 bulls av 1,340 at \$4.35, 1 do weighing 830 at \$3.50.

Smith sold same 2 cows av 1,050 at \$4.50, 2 do av 1,110 at \$4.

Sandle & T. sold Kamman 1 heifer weighing 830 at \$5.75, 1 cow weighing 850 at \$3, 6 butchers av 623 at \$4.50.

Johnson sold same 2 steers av 860 at \$5.25, 4 butchers av 687 at \$4.25.

Haley sold Bresnahan 1 steer weighing 690 at \$4.75, 3 heifers av 550 at \$4.

## Veal Calves.

Receipts, 1,054. Market 50@75c lower than last week. Best, \$7@7.50; others, \$3.50@6.75; milch cows, and springers, dull, very common.

Spicer, M. & R. sold Burnstine 11 av 150 at \$7.50, 7 av 160 at \$7.25, 7 av 135 at \$7; to McGuire 6 av 155 at \$7.35; to Mich. B. Co. 9 av 155 at \$7.75, 2 av 200 at \$4, 32 av 150 at \$7.25, 3 av 140 at \$7, 38 av 140 at \$7.35, 14 av 130 at \$7; to Caplis 5 av 125 at \$5, 42 av 130 at \$7; to McGuire 16 av 150 at \$7.65.

Roe Com. Co. sold Genich 12 av 121 at \$7.35; to Sullivan P. Co. 27 av 130 at \$7, 5 av 140 at \$5, 20 av 125 at \$6; to Caplis 12 av 140 at \$7, 2 av 235 at \$4.50.

Bishop, B. & H. sold Hammond, S. & Co. 2 av 110 at \$5, 11 av 150 at \$7.25, 1 weighing 200 at \$5, 14 av 140 at \$7.50, 1 weighing 160 at \$5, 10 av 170 at \$7.50; to Rattkowsky 1 weighing 160 at \$7.75; to Mich. B. Co. 11 av 135 at \$7.25; to Parker, W. & Co. 5 av 115 at \$5, 18 av 135 at \$7, 2 av 140 at \$5, 29 av 140 at \$7.25; to Markowitz 35 av 150 at \$7.20.

Jedele sold Hammond, S. & Co. 5 av 165 at \$7.50.

Kalahar sold same 1 weighing 190 at \$5, 21 av 155 at \$6.50.

Duelle sold same 2 av 100 at \$5, 33 av 145 at \$7.25.

Belheimer sold same 12 av 130 at \$7.30.

Long sold same 9 av 150 at \$7.50.

Johnson sold Sullivan P. Co. 25 av 130 at \$7.25.

Haley sold Thompson Bros. 5 av 185 at \$5, 23 av 135 at \$7.25.

Kendall sold Parker, W. & Co. 21 av 140 at \$7.50.

Mertz sold same 33 av 150 at \$7, 6 av 110 at \$5.

Haley sold Goose 21 av 125 at \$5.55.

Groff sold Fitzpatrick Bros. 20 av 123 at \$6.75.

Morris sold same 5 av 120 at \$5, 35 av 155 at \$7.

Haley sold Newton B. Co. 5 av 128 at \$4, 20 av 135 at \$6.50.

Wagner & A. sold same 4 av 125 at \$5, 21 av 130 at \$7.25.

Sandle & T. sold same 18 av 135 at \$7.25, 3 av 175 at \$5.

Weeks sold same 23 av 130 at \$7.

Bennett & S. sold Rattkowsky 2 av 125 at \$7.50.

## Sheep and Lambs.

Receipts, 1,260. Market steady (quality considered). Thin, common grades not wanted; keep them on the farm.

Best lambs, \$7.50@7.60; fair to good lambs, \$6@6.50; light to common lambs, \$5@5.50; spring lambs, \$8@8.25; fair to good sheep, \$4.50@5; culls and common, \$2@3.

Bishop, B. & H. sold Mich. B. Co. 14 sheep av 75 at \$3.75, 17 lambs av 75 at \$7; to Young 14 spring lambs av 63 at \$8.25, 23 lambs av 90 at \$7.50, 4 sheep av 115 at \$5.50, 5 do av 115 at \$4.25; to Thompson Bros. 38 lambs av 70 at \$6.50; to Sullivan P. Co. 33 sheep av 80 at \$5, 1 buck weighing 170 at \$4; to Fitzpatrick Bros. 30 mixed av 80 at \$5.75.

Spicer, M. & R. sold Mich. B. Co. 3 sheep av 105 at \$4, 16 lambs av 65 at \$7.25, 8 sheep av 70 at \$3.50, 23 mixed av 90 at \$5.85, 15 sheep av 107 at \$3.75, 6 lambs av 83 at \$7, 2 do av 90 at \$7, 1 sheep weighing 160 at \$4, 20 yearlings av 80 at \$6.25, 15 lambs av 78 at \$7.75; to Young 48 do av 82 at \$6.25; to Fitzpatrick Bros. 61 do av 73 at \$7, 10 sheep av 79 at \$4.

Roe Com. Co. sold Mich. B. Co. 18 sheep av 90 at \$5.50, 6 spring lambs av 60 at \$8; to Eschrich 28 mixed av 80 at \$5.50, 19 sheep av 70 at \$4, 1 lamb weighing 60 at \$7.

Groff sold Fitzpatrick Bros. 2 sheep av 150 at \$3, 5 lambs av 55 at \$7.

Morris sold same 1 sheep weighing 80 at \$3, 2 do av 65 at \$5, 14 lambs av 60 at \$7.

Bennett & S. sold Parker, W. & Co. 23 sheep av 110 at \$4.50.

Jedele sold Hammond, S. & Co. 1 buck weighing 100 at \$2.50, 7 sheep av 90 at \$3.50, 6 lambs av 65 at \$6.

Wagner & A. sold Newton B. Co. 1 buck weighing 170 at \$3, 3 sheep av 105 at \$5.

Sandle & T. sold same 15 do av 80 at \$5.25.

Kalahar sold same 5 do av 100 at \$3, 10 lambs av 71 at \$7.50.

Johnson sold Sullivan P. Co. 2 spring lambs av 60 at \$3, 5 sheep av 150 at \$4, 24 do av 90 at \$5.

Haley sold Thompson Bros. 20 sheep av 105 at \$5.50, 28 lambs av 90 at \$7.

C. M. Belheimer sold Mich. B. Co. 180 dry-fed lambs av 80 at \$7.60.

## Hogs.

Receipts, 2,920. Good grades 10@15c higher; others steady.

Range of prices: Light to good butchers, \$7.40@7.60; pigs, \$6.75@7; light yorkers, \$7@7.40; stags, 1/2 off.

Roe Com. Co. sold Parker, W. & Co. 214 av 180 at \$7.40.

Sundry shippers sold same 137 av 170 at \$7.40, 130 av 145 at \$7.25.

Spicer, M. & R. sold same 44 av 200 at \$7.40, 36 av 185 at \$7.30, 9 av 208 at \$7.25, 19 av 175 at \$7.15, 391 av 180 at \$7.50.

Bishop, B. & H. sold Hammond, S. & Co. 540 av 190 at \$7.50, 183 av 160 at \$7.35, 218 av 170 at \$7.40, 389 av 180 at \$7.45.

Sundry shippers sold same 116 av 180 at \$7.50, 56 av 200 at \$7.45, 117 av 180 at \$7.40.

Sundry shippers sold Sullivan P. Co. 51 av 235 at \$7.60, 217 av 178 at \$7.50, 235 av 170 at \$7.45, 31 av 130 at \$7.

## Friday's Market.

June 4, 1909.

## Cattle.

The run of cattle was light and the trade dull at Thursday's prices.

We quote: Good dry-fed steers and heifers, \$6.60; steers and heifers, 1,000 to 1,200, \$6@6.25; steers and heifers, 800 to 1,000, \$5.50@6; grass steers and heifers that are fat, 800 to 1,000, \$5@5.25; grass steers and heifers that are fat, 500 to 700, \$4.50@4.85; choice fat cows, \$4.50@4.60; good fat cows, \$4; common cows, \$3@3.35; canners, \$1.50@2; choice heavy bulls, \$4.75; fair to good bolognas, bulls, \$4.50; stock bulls, \$4; choice feeding steers, 800 to 1,000, \$4.75@5.15; fair feeding steers, 800 to 1,000, \$4.50@4.60; choice stockers, 500 to 700, \$4@4.25; stock heifers, 500 to 700, \$4@4.25; stock heifers, 3.25@4; milkers, large, young, medium age, \$4@4.7; common milkers, \$2@3.

Spicer, M. & R. sold Hammond, S. & Co. 3 bulls av 973 at \$4.50, 1 do weighing 1,000 at \$4.50, 2 do av 725 at \$4; to Sillington 8 stockers av 516 at \$4; to Prince 2 do av 540 at \$4, 2 do av 480 at \$4, 1 bull weighing 600 at \$3.50, 2 do av 500 at \$4, 9 do av 863 at \$3.50; to Regan 9 butchers av 686 at \$4.30; to Sullivan P. Co. 1 steer weighing 1,130 at \$5.50, 1 cow weighing 1,030 at \$3.85; to Hammond, S. & Co. 3 cows av 980 at \$4.50, 4 butchers av 842 at \$5.25; to Carey 1 cow weighing 940 at \$3.25; to Fry 8 butchers av 1,031 at \$4, 3 bulls av 773 at \$4, 4 steers av 817 at \$4.75.

Bishop, B. & H. sold Kamman 3 cows av 1,033 at \$3.75, 1 bull weighing 1,080 at \$4.25, 10 steers av 920 at \$6, 1 cow weighing 910 at \$3.75, 1 do weighing 980

at \$2.50; to Sullivan P. Co. 1 steer weighing 1,090 at \$6.50, 1 bull weighing 1,090 at \$4.35, 1 do weighing 1,140 at \$4.35, 2 do av 825 at \$3.60, 3 heifers av 790 at \$4.60; to Heinrich 19 steers av 1,230 at \$6.30.

Roe Com. Co. sold Schlischer 6 cows av 990 at \$4.25.

## Veal Calves.

The veal calf trade was 25@50c lower than on Thursday.

Best grades, \$7@7.75; others, \$4@6.75.

Miller Bros. sold Newton B. Co. 23 av 140 at \$7.50.

Bishop, B. & H. sold Oversmith 21 av 160 at \$7.50.

Same sold Goose 6 av 115 at \$5.

Roe Com. Co. sold Mich. B. Co. 8 av 150 at \$7.50.

Bishop, B. & H. sold Finseliger 7 av 150 at \$7.75.

Same sold Bresnahan 6 av 120 at \$6.25.

## Sheep and Lambs.

The sheep and lamb trade was full steady with Thursday. The quality was very common.

Best lambs, \$7.75@7.90; fair to good lambs, \$6.50@7; light to common lambs, \$5.50@6; spring lambs, \$8@9; fair to good sheep, \$5@5.50; culls and common, \$3@4.50.

Miller Bros. sold Newton B. Co. 1 sheep weighing 140 at \$5.

Bishop, B. & H. sold same 27 lambs av 85 at \$7.25.

Same sold Oversmith 8 sheep av 120 at \$5.

Same sold Cooper 27 do av 90 at \$5.50.

Roe Com. Co. sold Mich. B. Co. 2 sheep av 130 at \$3.

Bishop, B. & H. sold same 7 sheep av 100 at \$3.50.

## Hogs.

The hog trade was active and prices paid were 5c per hundred higher than on Thursday.

Light to good butchers, \$7.40@7.50; pigs, \$6.75; light yorkers, \$7@7.25; stags, 1/2 off.

Bishop, B. & H. sold Hammond, S. & Co. 278 av 180 at \$7.45.

Miller Bros. sold same 127 av 160 at \$7.30.

## HAY &amp; GRAIN

We want to hear from shippers of Hay and Grain—Our direct service to large consumers in the district enables us to get top prices for good shipments. Liberal advances to consignors.

Daniel McCaffrey's Sons Co., Pittsburg Pa.

Ref.—Washington Nat'l Bank, Duquesne Nat'l Bank.

## FARMS AND FARM LANDS FOR SALE OR EXCHANGE

**FOR SALE**—172-acre farm, five miles from Ann Arbor, Mich. Write W. V. SMITH, Flint, Mich.

**TENNESSEE FARMS.** Full information and prices regarding Tennessee Homes Address, ROBT. L. COFFMAN, Big Sandy, Tenn.

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

**CALIFORNIA** Oranges, olives, deciduous fruits, alfalfa. Sacramento Valley; pay \$50 to \$1000 per acre. Several choice bargains. F. L. SOUTHWICK, Room 801, Union Trust Bldg., San Francisco.

**WHY PAY RENT** 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. **STAFFORD BROS.** (owners) 15 Merrill bldg., Saginaw, W. S., Mich.

**FOR SALE**—High grade farm lands in Osceola 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.**

**TETON VALLEY, IDAHO,** has more natural advantages than any other irrigated land in United States. See it. Perpetual paid water rights; perfect titles and abstract; easy terms; new railroad; delightful climate; carfare refunded to actual purchasers in June or July. Call at our office. **IDAHO LAND & LOAN COMPANY** St. Anthony, Idaho

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## 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.

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## View From the Rear

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Profit by the experience of over 60,000 Farmers now using these collars and see your dealer or send your name for 15 Days' Free Trial. No more expense for sweat-pads, hames and short tugs which they displace. And when you can buy a Whipple Collar that will keep your horse well, it is a crime to torture him with a collar that will make him sore. And it's bad policy from a money-in-your-pocket point of view. Consider these facts and decide to try at least one set of Whipple Humane Horse Collars.

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Don't use "sweat-pads." It's cruel—especially in hot weather—injures your horses and costs more in every way. Use Whipple Collars and your horses will have no more sores—galls or bruised shoulders. No more wasted time. No more loss of valuable horses ruined by sores, bunches or diseased shoulders. No more sweated colts, either, can't be. Every set comes complete and ready to use—less trouble to put on and take off and fits any horse perfectly all the time by simple adjustment. Built to last for years by expert workmen, and of durable materials. Write us today for testimonials and

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## HOME AND YOUTH

THE WALL-A-POO INDIANS AND BILL.

BY NELSON A. JACKSON.

"Whoop-e-e-e, whoop!" That, to the ears of the gang, meant come. You came with a rush to the place, where Mitt stood by Ben Proctor's barn, the side of which was completely covered with gaudy posters, announcing the attractions of a Wall-a-poo Indian Gagawa Medicine Company.

"Gee whiz," you exclaimed, "I'm going if dad will let me." Then the whole gang nearly lost its breath, for the entire thing was free. Free! How you cherished that word; no longing this time for the necessary money; no planning how to make a few extra nickels; no need to tease. You could go, of course you could. Wasn't it free, and the lack of money was always the reason given why you couldn't attend every chance show that came along.

How you kids stood and drank in the startling information set forth by those posters!

"I'll bet that fellow standing back there by the fire, with his arms folded, is the chief. Gee, ain't those feathers dandy? They look just like turkey feathers."

"I wonder how 'Injuns' used to build fires," queried Gerald. "John, (his big brother), says that they didn't used to have matches."

"Huh, ain't you never studied history and learned how they used to pound stones together to make sparks that set the leaves on fire?" answered Frank.

"I don't care if the old history does say so. I don't believe it. You try it and see. I'll bet you \$5,000 you can't do it."

"You kids make me tired," drawled Mitt, "don't you know that you've got to be an 'Injun' to make stones spark, and then you've got to have just the right kind of stones."

"Dad's got an old flint-lock musket up in the garret. It makes a spark, when iron hits the stone. My great-great-grandfather had it in the Revolutionary War. Come on, kids, an' I'll show it to you."

You swelled with pardonable pride as you gave this information. What did it matter if every member of the gang had seen this self-same musket twenty times? Where is there a boy who will not turn out of his way to see and handle a gun?

At supper you proceeded to enlighten the family concerning the Wall-a-poo Indian Gagawa Medicine Company and were sorely puzzled on account of the lack of enthusiasm exhibited by father and mother. But you were completely dumfounded when mother finally remarked that you had better not plan on going.

"Why, ma, why can't I go? It don't cost nothing, it's free; it says so right on the bill on Ben Proctor's barn. I never seed a real, honest, live 'Injun' in all my life. Please say 'yes.' Your lip quivered and your eyes got suspiciously moist, but mother still shook her head. It was beyond your depth to decide, why, if a thing was free, you couldn't go.

"I'll be awful good and not forget to split the kindlings once if you'll let me go just one night. Why, there's going to be a whole tribe of Indians with their squaws and papooses, an' they're going to have wigwags an' dance an' yell an' throw their tomahawks an' make believe scalp people, an' wear feathers an'—oh, please can't I go?"

"Well, my boy, mother and I will think about it." Dad's words brot a little gleam of hope, enough so that you commenced to plan and you went to bed to dream of Indians and their bloody deeds.

At breakfast, the last cloud was dispelled from your sky when mother said that you might go for one night. When you started for school you found the rest of the gang lined up in front of the posters. You were greeted by the chorus, "going Jack?" You were quick to reply in the affirmative, being very careful to reserve the fact that, thus far, only one night's pleasure had been promised.

You kids stood and discussed the show until the warning bell called you to an irksome duty. "Old Bow Legs," the teacher, had a hard time of it with you that day. Your minds were far back in the early ages, when the Red Man roamed at will in the forest primeval. You were not spending your precious time on such trashy things as school books. You were fighting with and trying to

outwit the crafty Indian. Suddenly you found your legs sticking straight out in the air and you heard, not a Wall-a-poo Indian warwhoop, but Bow Legs saying, "What's the matter, you little imp? Get to work, or I'll give you something smart to think about." For the rest of the day you at least kept up the appearance of studying.

The anxiously awaited day came at last, and at noon you saw a real live Indian, dressed in buckskin and feathers. To your surprise, he was neither yelling or brandishing a tomahawk, and, so far as you could see, he had no scalping knife, but was engaged in the rather belittling work, so you thot, of distributing, from house to house, circulars, which set forth in no uncertain words the many virtues of Wall-a-poo Indian Gagawa. But he was an Indian, so you and the gang followed at a respectful distance. Abruptly, he turned. You kids stopped stock still, but instead of a warwhoop, he merely said, "Here, you lazy kids, distribute some of these circulars on your way to dinner."

"Gosh, wish I was an Indian, then I wouldn't go to school no more," Frank sighed, as you slowly made your way back after dinner. "Injuns don't have to learn nothing; they always know everything."

School over for the day, you could hardly wait for the evening. You were with the rest of the gang standing about in front of the old opera house, two hours ahead of time, and the moment the doors were opened, in you all rushed and lined up in the front row of seats.

That show, to your mind, was a dandy, and you, in open-mouthed wonder, took it all in, to the minutest detail. What did it matter to you that there were only two Indians, no squaws, no wigwags, no scalping, and no fiercely contested battles? What the show lacked, your imagination easily supplied. Little did you care if the greater part of the time was spent by a red-faced, loud-voiced man shouting forth the wonderful cures wrought by Wall-a-poo Indian Gagawa, only one dollar per bottle. You even converted him into an Indian chief, haranguing his braves on the eve of battle. Oh! it was splendid. You did think it was a little mean, tho, when the red-faced man announced: "Ladies and gentlemen, we are very glad to see you with us tonight. We are sorry that, on account of illness, the rest of our Indians could not be here for the first performance. We expect them tomorrow. On Saturday evening we shall prepare a special feature program, which you cannot afford to miss. You will be able to learn more about true Indian life by attending that exhibition than in any other known way. On account of extra expense, the admission will be 25 cents."

As a matter of fact, the extra Indians never put in an appearance and the Saturday night show was no better than the first night, so Frank said, and he went; he always went.

The next day, the gang, with you as chief, became a tribe of Indians and at once went into camp back in the gully, just back of Fred Kirk's stone quarry. You got feathers and old sacks; adorned your trousers and coats with fringe, and topped off the whole thing with some startling head dresses.

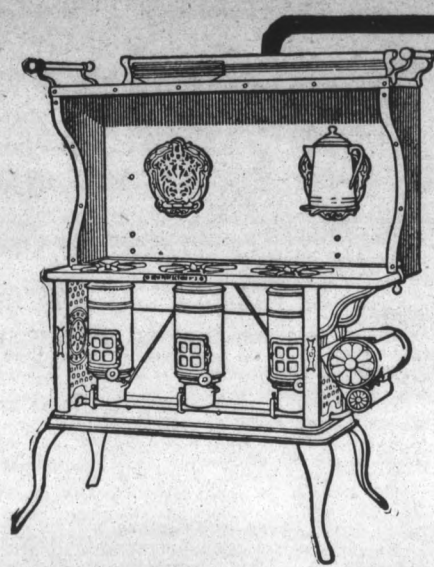
Then you stopped and pondered what to do. "I've got it," yelled Frank, dancing with delight. "Let's get Bill Elwire and pretend that he's a white man we have captured and we are going to burn at the stake."

"Gee, that's all right, but how are we going to get him off out here," you asked. Will lived in your neighborhood, but he was a smarty and went mostly with the down-town gang. Furthermore, from previous experience, he had learned to leave the gang pretty well alone.

"I'll tell you what," suggested Dwight. "You know he likes me better than the rest of you. When I ain't with you kids I can get him to come back here to see if he can tell what kind of a hole this is."

After dinner you sneaked back to the gully and carefully concealed yourself in the bushes in the neighborhood of the hole. In a short time you saw them coming up thru the old orchard. As they drew nearer, you could hear Bill telling Dwight that he was sure it was a fox hole, "cause he had seen foxes up here." You trembled with excitement and could hardly keep from making a dash. But you waited until Bill got down on all fours to smell of the hole, when, with a blood-curdling yell, the gang rushed upon him and had him fast before he realized what was happening. Then the storm broke.

"Confound you, Dwight Henry, you old



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The New Perfection Wick Blue Flame Oil Cook-Stove differs from all other oil stoves.—It has a **CABINET TOP**. This means you can keep dishes and utensils within easy reach while cooking, and can keep food hot after removing it from the blaze.

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is without equal. Its principle of concentrated heat means that the work can be done quickly and without the kitchen being heated to an unbearable degree. Can be lighted instantly and turned "high," "low" or "medium" at will. Three sizes. With or without Cabinet Top. At your dealer's, or write our nearest agency.



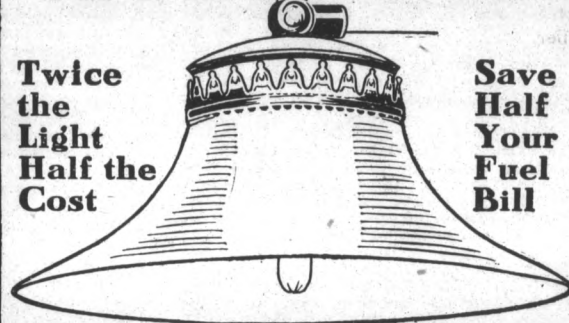
The **Rayo Lamp** comes as near lamp perfection as it's possible to get. Gives a clear, bright light that reaches the farthest corner of a good-sized living-room. Well made throughout of nicked brass; perfectly safe and very ornamental. If not with your dealer, write our nearest agency.

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will increase the cheerfulness and beauty of your home, do away with the disagreeable filling of greasy lamps, lessen the work of preparing meals, and will save you money. An "F. P." Lighting Plant occupies no more room than a pantry shelf—can be put in the kitchen or elsewhere—needs almost no attention. It generates the brightest gas light known, and gives you a hotter fire for cooking than coal, coke or coal gas.

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**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 easterly 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.

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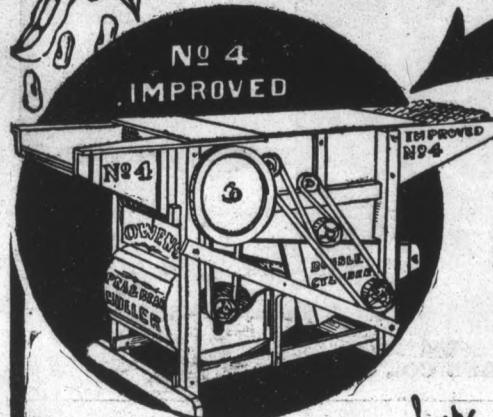


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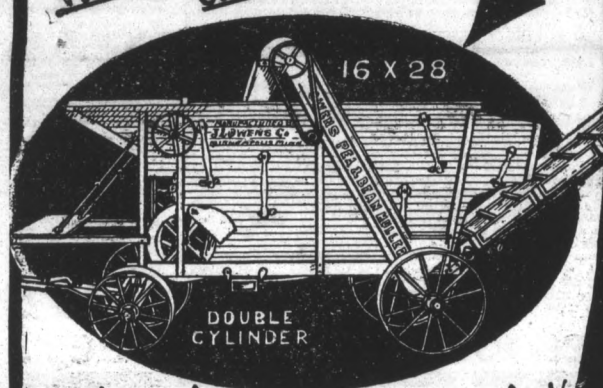




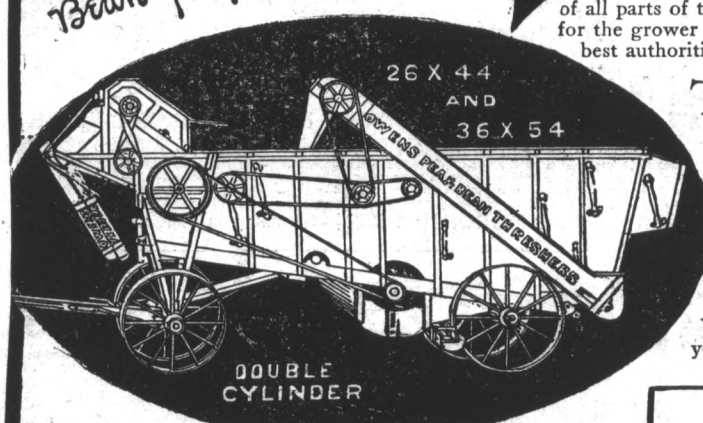
# DO YOUR OWN THRESHING



*For the small grower. Threshes from the vines without splitting the seed. Beans, Peas, buckwheat, Saffor corn, cane and Sorghum.*



*Will also thresh small grain if equipped with extra pulleys. Will increase your Pea and Bean profits 33%.*



*For the large growers and threshermen. Has larger capacity than any other threshing machine. Will thresh and clean corn as regularly as equipped.*

**ONE-HALF** of your profits from Peas and Beans 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 taking all sand, dirt and foul stuff out of them. Handled by an Owens Thresher your crop will yield you better in quantity and in price both for your seed and hay. Don't continue the old wasteful way of handling your crop—**INVESTIGATE THE NEW—THE PROFITABLE "OWENS" WAY**

## The Real Value of a Crop of Peas and Beans

*"I tried to thresh my crop with a regular thresher, but I found that over one-third of the seed was split."*

This is what hundreds of farmers write us—then some of them tell us that they just gathered by hand enough for seed and turn the rest of their crop into feed. Others again will hand pick their whole crop and hull the pods with a small hand huller.

Are you aware of the tremendous waste of profits there are in these methods of handling a crop of beans and peas? Just figure what your crop is worth per acre—\$30.00 is a low estimate we are sure, but even at that you do not have to grow very many acres before you have lost enough to pay for an OWENS Thresher.

Perhaps you are one of the many who do not

attempt to save the seed—just use it for feed—vines, seed and all.

If you knew that every seed your vines produces could be saved to bring you **highest market prices**, that the vines could be shredded for hay, bringing you more money than if you sell or feed it as taken from the fields—would you not investigate the merits of a machine guaranteed to produce these results? Then let's tell you about the Owens Threshers.

If you have tried the hand picking process you know how slow, tedious and expensive it is, and it would pay you to learn about the Owens Threshers before you harvest another crop.

In short, you do not know what the real value of Peas and Beans are until you have threshed your crop with the—

# OWENS PEA AND BEAN THRESHERS

**BUILT IN FOUR SIZES**

**Double Cylinders—Larger Separating Space than any other Thresher of Equal Size—**

which has double cylinders, enabling one to run the thresher at a low rate of speed, preventing any possibility of splitting the seed—and yet being able to take **every pod** from the vines.

(A single cylinder thresher cannot take all the pods from the vines if the speed is reduced sufficiently so as not to split the seed.)

"The Owens" has on account of its extreme length, a larger separating space in proportion to its size than any other thresher built. This also makes the Owens do much cleaner work than any other so that you can do without a recleaner.

It is built of absolute first-class material by the most skilled mechanics and workmen, and is an all around superior thresher—

But we are unable to give you a true, clear description of the Owens in this ad. Our catalog does that fully, besides shows you illustrations of all parts of the machines. You better send for it—it's a valuable book for the grower of Beans and Peas, as it gives information gathered from the best authorities on how to grow and cultivate them.

## Try an OWENS Thresher at Our Risk

We will send any of our 16x28 and larger size machines on a six days approval test to any responsible farmer or thresherman. We don't ask you to take our word for what the thresher will do, we offer to have the thresher demonstrate it to you in actual operation, run by yourself.

You cannot possibly lose by accepting such an offer, and you better write us for further particulars today.

### The Manufacturer's Own Proposition to You

Is the most liberal ever made by any manufacturer. If we have no agent or dealer in your locality, we will save you their commission, but you must write us so we can explain it to you fully, and send you price list and full particulars about our free trial plan, guaranty, etc.

Let us hear from you at once.

**J. L. OWENS CO. 635 Superior Street MINNEAPOLIS, MINN.**

## READ WHAT THEY SAY WHO OUGHT TO KNOW

South Bend, Ind.  
J. L. OWENS CO., Minneapolis, Minn.

GENTLEMEN:—The No. 4 bean thresher I bought of you last year is a dandy one. All that saw it work says it does the work fine, we can thresh 10 bushels of kidney beans per hour with a 2 H. P. engine, and it will do all you claim it will do.  
Yours truly,  
L. F. CAUFFMAN.

Carmen, Okla.  
J. L. OWENS CO., Minneapolis, Minn.

GENTLEMEN:—The 16x28 thresher is all that you claim and more. We are now threshing cow peas at a rate of 25 bushels per hour. The vines are the heaviest growth we have ever handled, but with 4 horses on the power, and three hands, we hulled 400 bushels last week, and hauled them from the field where they were in bunches using the teams of the power to haul in, and were hauling about half the time. For these short days this is a pretty good showing. We are now threshing from stacks, and the machine is doing perfect work. We had figured on 800 bushels, but there will be nearer 1200 as it gets them all from the vines. Your 16x28 huller is a success.  
Respectfully,  
J. P. JOHNSTON.

Neosho, Mo.  
J. L. OWENS CO., Minneapolis, Minn.

GENTLEMEN:—The 26x44 thresher that I bought of you did the work so nicely far and near they came to see it work and all were pleased. 75% more peas will be sowed here this year because of this separator here to do the threshing.  
Yours truly,  
JACOB I. VICKERS.

Blodgett, Mo.  
J. L. OWENS CO., Minneapolis, Minn.

GENTLEMEN:—I bought one of your 26x44 pea and bean threshers, and I must say that it is the best machine I ever saw for threshing clean and also for quantity. The peas I threshed sold for a better price than any other, and even the hay sold for a better price, as the Owens Huller takes out the sand and dirt and takes very little power, 70 pounds of steam will run the whole rig. I advise any man that wants a machine to buy an OWENS THRESHER as they can't be beat. I hope you sell lots of hullers this year, and remain,  
Yours respectfully,  
H. W. WERNECK.

Merrill, Mich.  
J. L. OWENS CO., Minneapolis, Minn.

GENTLEMEN:—The new bean and pea huller that I bought of you Mr. Byers is a cracker-jack. The feeder works to perfection. All the fault I have with it is that I can't get beans enough to it. Threshed 320 bushels in 3 hours and 20 minutes. If they can beat that with any other make of machine I would like to see it done. Yours truly,  
ISHMAEL DAVIS.