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The Farm Labor Home.

THE question of keeping efficient labor on the farm has been a stumbling block to the average farmer. It has been suggested that the farmers might import foreign labor and allow the young Americans to go to the city if they have such desires. But no rural life can be made happier by scattering the ignorant classes of Europe among our farmers and that is not the way to keep the boy on the farm or to bring pleasant neighbors to the wives and children.

Every young American farmer desires a home and, by working in the factory, he can rent a place that is his own private abode and free from intrusion. The farmer cannot always give his hired man the advantage of a home. He is sometimes expected to occupy one of the poorest rooms in the house and his presence is a source of annoyance to the family circle. That explains why many men leave the farm.

The accompanying photographs were taken on the farm of a man who has solved his labor problem in an inexpensive and satisfactory manner. The problem of keeping the man contented and happy was simplified when that man had a home where he could raise his family and entertain his friends. Many young men have left the farm because they had no hope of starting a home until they had earned sufficient money to buy their own farm. They gave up farming rather than exist under the roof of their employer, while with the advantages of home life they would have been as contented to work in the country as in the city. If some owner of broad acres had spent a few hundred dollars in building a small house, he might have hired one of these men as the city manufacturer hired him. The investment would have paid good dividends and with the privacy and contentment of home life the hired man would not have longed for the city with its high rents and confining work. The man would then take much more interest in the farm because it would be his home and he would not classify as a transient laborer.

The small square house shown in the photograph contains four rooms and has proven a comfortable home for a man and his wife. It is plain and with no architectural beauty, but it has been the means of keeping a first-class man on the place for five years. He is a better man than would ever have lived within another man's family circle where he could not have been independent. He would have gone to the city but even though the wages were higher, he could not have saved as much money as on the farm. House rent, butter, and eggs were but small expense as the house is furnished to the man at a fair rent and he is allowed to keep his own chickens and cow. The potatoes, corn, and general truck from his own garden are insurance against a big grocery bill and thus the worker on the farm receives at little cost many of the necessities that reduce the savings of the city man. The horses are often available on Sunday afternoons and the neighboring lakes are pleasant spots for holiday recreation. The clothes bill on the farm is small compared with the city and each month a fair per cent of the pay check goes into the bank. If the man had gone to the city he would have worked up in a trade, but he has learned the trade of a farmer and will always be a good citizen in the community.

The second and larger of the tenant houses described, houses a man and his wife and their three children. Two of them are boys and the larger is already a willing worker who can spend his vacations to the finest advantage learning the

farming trade and earning school money. The advantages of a home have made that man a good citizen and the advantages of an education will make his son a better one. They are proving earnest, efficient, and reliable men and work for something beyond the realm of the mighty dollar. The farm wages are not high but the many sources of supplies have brought the income above the average wages of the city laborer and the environment has been pleasant and healthful.

This article does not attempt any explanation of how to build tenant houses, or the expense of the construction, as there are many conditions existing upon

plain that they are losing money every year on account of a shortage of help that we cannot wonder oftentimes that they are disgusted with the business and are ready to rent their farms and move to town. And yet, notwithstanding all the loss and inconvenience that this condition occasions I am inclined to think that the dearth of farm help may be a real boon to the cause of agriculture. It may seem paradoxical but I think it will work out that way. Farm products will tend to keep on a higher level of prices and no amount of drastic legislation can keep prices down so long as productive labor continues so scarce. At any rate,

able for the place. And I think this would be the experience with a good many others (now having difficulties) if they could manage to hire their help the year round, or nearly. It is the long time service on one farm that is necessary to bring out the greatest efficiency in hired help. The man now in our employ has been with us two years and he is more valuable than he was the first year. This is not always the case, but he is more likely to prove his real worth than the man who only stays a few months in a place.

Ohio.

H. E. WHITE.

ANOTHER HIRED MAN'S VIEWPOINT.

I would like to make a few remarks in regard to the articles written by Mr. Hutchins and also by the party signing himself, "A Hired Man," and Mr. Root.

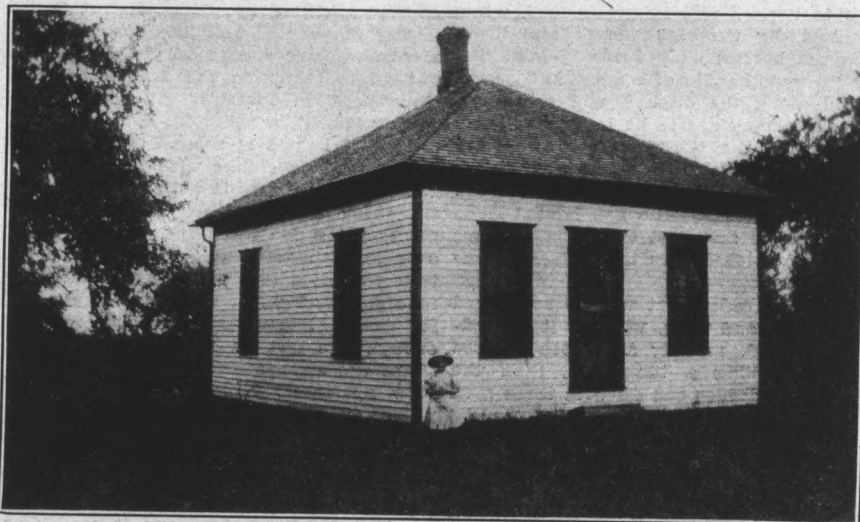
Like "A Hired Man," I was not needed at home, so commenced working out and have continued to work out for the past eleven years, and wish to say right here I do not side entirely either with the employer or the employee.

I have been employed by four parties during that time and in three different counties, and have worked alongside of a great many hired men and will go a step farther than Mr. Hutchins and say that the majority of hired men are careless and heedless, decidedly so, and, on the other hand, I think the majority of employers are careless, and I think Mr. Hutchins will agree with me in that.

"A hired man" says farmers do not pay high enough wages, but my observation has been that they do and that in many cases greater than the value received, but on the other hand, I think many farmers let good men slip through their fingers because they will not pay more than the "going wage" when those men's services are worth considerable more than the average. He also says they ought to be furnished winter employment. I believe a good man will always find winter employment. I cannot agree with him when he says they cannot save up anything, for I know they can from experience. I have always dressed well, and have sent considerable money home, and have completed the two-year short course in general agriculture and the two weeks short course in horticulture at M. A. C., and by the way, what more profitable way could a hired man spend two or three of his winters than by attending the short courses for his own future benefit as well as the benefit of his employer at present. Besides this, I could pay cash today for a brand new 1913 touring car. I am not writing this to brag, but to show that a man can save if he wishes to. I might add that I commenced working for \$12 per month in summer and doing chores for board and going to school in winter, and have never received over \$30 per month in summer and \$20 in winter.

As to irregular hours, I think many farmers could shorten their hours to good advantage if they would do more head work, but if there is anything I detest it is a man who will drop everything when the whistle blows no matter what the result is to his employer. I remember once I was spraying an orchard and there was a young fellow doing the driving and pumping for me and it was Saturday afternoon, when the supper bell rang we had about six or eight trees left and just enough material in the tank to finish and it would not have taken over 20 minutes to have finished the job, but the fellow dropped the pump handle and would not pump another stroke. The result was, Monday it rained and Tuesday it was too late and we harvested a crop of poor apples off those trees.

Mr. Root mentions the farm help problem. I would like to give a few thoughts



A Plain and Cheap Tenant House, yet an Appreciated Farm Labor Home.

the individual farm that must be taken into consideration. Upon the farm described, the problem of keeping efficient labor was the biggest handicap to success. The method of housing the men has proven satisfactory and the cost of the houses has been well repaid. Almost any farmer owning a hundred acres of land can build a small tenant house on that land. It will mean the greatest of happiness, both to his own family who may regard the hired man as an intruder

it seems unwise to raise such a clamor about young men leaving the farm for it may be for the best. Who knows? Perhaps it may stimulate inventive genius so that the few who remain in the country will become expert managers, for to be handicapped in any important particular has made many a man resourceful.

Those who hire help continuously have varied and interesting experiences, but nearly all agree that the permanency of



A Desirable Type of Tenant House will Solve the Farm Labor Problem.

and to the hired man who has the desire for his own home. It seems a far more sane solution to the farm labor problem than the importing of foreign labor and, to many farmers, it will be the only way of keeping an efficient man in their employ.

Van Buren Co.

R. G. KIRBY.

THE HIRED HELP PROBLEM.

Again the question of hired help keeps bobbing up as the ever dominant issue connected with farming. So many com-

the job has a good deal to do in attracting the better class of help. On our farm of nearly 300 acres we used to depend on help by the day and I spent much time chasing around town looking for help in haying and various other jobs; but for the past few years we have been hiring by the month and nearly the year round and the result is that I have scarcely spent an hour since, in looking for help, nor do we pay extraordinary wages. There were three applications this spring for a job on the farm and therefore we had the opportunity to choose the man most suit-

that have come to my mind during the past year.

The majority of farms are supplied with enough boys and girls to carry on the farm work if they could be induced to stay. Everyone knows that a boy well-trained at home who is interested in his work is the best hired man a farmer could have.

I believe that the boy corn contests and other contests of farm work properly conducted and encouraged, will do more toward getting the boys and girls interested and finally solving the "farm help problem," than any other one thing.

Oceana Co. ANOTHER HIRED MAN.

INOCULATING ALFALFA.

The growing of alfalfa is becoming more common year after year and the value as a forage crop is becoming more marked, especially in some of the northern states. Some farmers are very successful, while others have complete failure. This failure is due, perhaps, to two things; namely, improper preparation of the seed bed, and to lack of inoculation of the seed or soil, the latter being the greatest factor.

Inoculation of an alfalfa field a few years ago was thought to be of very little value, but today farmers are beginning to see that inoculation is absolutely necessary for the best production of alfalfa. The field may become inoculated after alfalfa grows in a rich field eight or ten years, this method, however, is too slow and besides, the plant, instead of depositing nitrogen in the soil, is taking it from the soil. It has no power of forming nodules on the roots unless these particular bacteria are present. This is not only true with the alfalfa plant but it is also true with the clovers, cowpeas, soy beans and all of the legumes. They all require a certain bacteria for their best development.

We may wonder why the legumes do not grow well in an acid soil, since other crops, such as corn, oats and rye thrive very well in this kind of a soil. They do not grow well because the bacteria are not able to live in an acid soil. This difficulty can easily be overcome by applying about one ton of ground limestone per acre to the field. The lime is a base and neutralizes or corrects the acidity.

The most common method for inoculating for alfalfa is by scattering dirt from an old alfalfa field or from where there is a good growth of sweet clover. Two or three hundred pounds of such dirt harrowed in on a cloudy day before the bright sun can destroy the bacteria is easily and economically applied. Last year we inoculated a five-acre field by this method. The soil was sown broadcast on a cloudy day at the rate of 200 pounds per acre. Three weeks ago while going over this field I noticed narrow strips of dark green alfalfa across the field, and they seemed to be where we walked as we sowed the soil broadcast by hand. Last week I noticed that these dark green strips were gradually becoming wider and in a short time the whole field will be of the same color. You may think that this dark color is due to a thicker growth on account of sowing the seed broadcast, but the seed was sown with a disc drill both ways, so the dark color is due to nothing else but the action of the bacteria. This particular case plainly shows the excellent results obtained from inoculation.

Another method which is easier and more economical is the glue method. Dissolve about a pound of ordinary furniture glue in a gallon of water. Moisten the seed thoroughly with this solution, stirring the seed for an even distribution, then sprinkle on the finely pulverized and dried dirt containing the bacteria. Care should be used in drying the dirt before applying as there is danger of killing the bacteria. The dirt should be selected from a place where the bacteria are known to be strong and numerous and should be dried and sifted in a moderately shady place. This method is a new one and has proven to be very satisfactory. The labor and time involved is much less than the former method.

Prepared culture can be secured from the United States Department of Agriculture or from some of the state experiment stations. The Michigan Experiment Station prepares all kinds of legume cultures and all farmers living in this state can get them at a nominal cost. Other farmers can secure the same from the United States Department of Agriculture. This method of inoculating is particularly recommended for sections where alfalfa is not grown and where the sweet clover does not grow. We used this method for inoculating our first field of alfalfa and now we use the soil from the already in-

oculated fields for inoculating new ones. Soil for inoculating can be procured from the United States Department of Agriculture but the expense involved in transportation is such that it is best to get the culture.

The methods of inoculating are not necessarily restricted to alfalfa, but cowpeas and soy beans, which need inoculation in a great many sections, can be inoculated by these methods with success.

If your alfalfa looks yellow and sick you perhaps have sowed it without inoculating the field. If such is the case, the best thing to do is to inoculate immediately or prepare the ground the next year and inoculate before sowing and your alfalfa will grow more thrifty with a healthier looking color.

Indiana.

J. C. KLINE.

SOME PROBLEMS IN TILE DRAINING.

Among the many interesting topics in your paper of recent date I have been particularly interested in the subject of drainage. I have some ideas of different methods that some others have perhaps tried, and if so I would like the benefit of their experience.

I have nearly five miles of tile drains and I need 20. The largest drain on the place carries the water from a half section of land. I have 80 rods of tile beginning with 10-inch, then eight-inch tile. I have cut the surface down to take care of the surplus or it would be of little benefit.

I bought a 14-inch cement tile machine and made a few rods and started the lower end but it takes more time than I care to use. I will take the ditch when dry and dig the right depth and level, with the bottom shaped for 14-inch tile.

With installments of cement and gravel placed along the ditch I will make the tile where they are to be left. I will use the core of the tile machine, which reduces its diameter one-half inch when pulling on the handle, as the form for the cement. Any man who has hauled large tile six miles and paid the price and put them in a ditch knows the difficulties encountered.

I have a grader that will do more good with a man and team, whether it is grading the road, making a smooth surface drain, or filling a tile drain, than the heavy road grader can do with three men and six horses.

Livingston Co.

F. L. HACKER.

LILLIE FARMSTEAD NOTES.

Disking Land Before Plowing.

For a number of years I have been a convert to the theory that it would pay to disk land before it was plowed, not only stubble land but sod ground, too. The theory has always been a plausible one to me. When the furrows are turned over in sod, for instance, there is an air space at the bottom of the furrow where the furrow laps. If the season is at all dry this air space prevents capillary connection of the plowed slice with the subsoil, consequently you get no subsoil moisture. The only way to do in this case is to thoroughly pack the soil down. Of course, in fall plowing the land gets settled down. That is one reason why it is better to plow sod in the fall than it is in the spring. But if this sod ground can be thoroughly cut up by disking so that when it is plowed down the sod would not hold together there would be no air space there because the fine dirt thrown by the jointer would fill this air space as it does in nice stubble ground, and you would get better capillary connection and consequently you would get more moisture from the subsoil by capillarity. And again, in plowing stubble ground the corn stubbles bother some. If ground gets a little dry, especially on clay, the jointer throws the trash and clods of clay in the bottom of the furrow. Now it is almost impossible to pack this soil afterwards so that you get the proper capillary connection so that you can get moisture from the subsoil. On the other hand, if the soil could be thoroughly disked, pulverized fine on top, fitted in such a way that it would be almost proper for a seed bed and then the ground is plowed, this air space is entirely avoided, because it fills with fine dirt. Then, when the ground is fitted after plowing you have a thoroughly prepared seed bed. I say I have been a convert to this idea for a number of years but never have been able to do it. In the first place, my ground is heavy land, much of it is clay. Horse pulverizers won't dig it up. If you load them down so that they will cut up this hard clay then the horses can't pull it. You haven't got the power to do the business.

People who live on sandy soil or on sandy loam know but very little about the difficulties of tillage.

On easily tilled soils there isn't very much of a problem. A good pair of horses will draw a plow all day. The soil is loose and mellow and plows down nicely. There are no clods to be crushed by a roller. The roller being put onto this soil presses it down and the tillage problem is not a very difficult problem. On the other hand, if you have heavy clay loams or hard lumpy clays the proposition is an entirely different one. It is hard work for a pair of horses to plow heavy soil. It usually plows up lumpy. It is tough. It takes lots of power to cut this up and fine it, and when corn stubble gets hard in the spring it is almost impossible to get a common horse pulverizer or spring-tooth harrow or anything of that sort to dig it up. But I have found something at last that will do this, and that is the modern big engine disk or cutaway. Implement manufacturers are now making disks that cut ten or more feet wide that weigh from 1,800 to 2,000 lbs., and are double action, one disk following the other so that it leaves the land level and not in ridges, and if the ground is exceedingly hard such an implement can be loaded with stones or sand bags so that it will go in. It will do the business. Now the only problem, then, is to get the power to draw it, and that power is solved in the modern traction engine. Horses can't do it. It is too hard work. It wouldn't be possible to keep horses enough on a farm to do this kind of work.

This year I had a corn stubble that we covered with a heavy coat of manure during the winter and late spring. This manure wasn't spread very well, it was put on too thick in the first place, and thrown off in forkfuls. We tried harrowing it with a spike-tooth harrow. Of course, it helped it some. Then we put on the traction engine with the big disks. We had to go over it both ways because these big disks wouldn't fit all of the places going one way. But when we went over it both ways this manure was all torn to pieces and mixed with the surface soil, and when we came to plow it it plowed like a garden. There was enough fine dirt on top so that it filled all of the air spaces. The ground didn't plow nearly as lumpy as it does some years, and I believe that it is the best job I ever did upon this field.

Again, the clover sod cannot be disked with ordinary horse tools. It takes too long. You would have to go over it a good many times to work it up. One can't afford the time in the spring. But the big engine disk will cut into the clover sod and tear it up in going over it twice, and chop it all up so that when it is plowed the fine dirt fills up the bottom of the furrow. We have just finished disking 40 acres of clover sod and I never had clover sod plow quite so well as this. Of course, if the season should be wet I don't think it would make so very much difference, but if the season is dry I am sure that we have formed a better capillary connection between the furrow and the sub-soil and we will get more sub-soil moisture, and I am positive that we have got a better seed bed.

Home-grown Alfalfa Seed.

In my alfalfa notes last week I forgot to say that I am making one more experiment, and that is, that I succeeded in getting a bushel of alfalfa seed that was grown within five miles of my farm, and I have seeded this alongside of other seed. The question to solve is whether home-grown alfalfa seed is hardier and better than that grown in the northwest. Most people are inclined to think that this will be better. I have a good chance to try it out because our other conditions will be equal. It is sown side by side with seed purchased from the northwest. I rather expect it will be a little hardier and a little thriftier, but only time will tell.

COLON C. LILLIE.

GOOD SEED CORN.

Make no mistake, plant only such Corn that is suitable to your locality. Many thousands of acres of Corn did not mature last season simply because many farmers planted seed that was grown too far south. Ask your dealer for our Northern Grown Fire Dried Seed Corn, and if he can not supply it, order direct from us and we will guarantee safe delivery. It costs only about 40c per acre more to plant your land with our high grade tested Seed Corn than if you plant your own. Ask for free samples and prices. Alfred J. Brown Seed Co., Grand Rapids, Mich. —Adv.

Practical Science.

SOIL AND FERTILIZER QUESTIONS.

The average farmer who begins to study the chemistry of the soil and how to maintain its fertility runs up against some problems which seem to him pretty hard to solve. We have learned that the three elements of the soil which are depleted by continued cropping, are nitrogen, phosphorus and potash. We know that nitrogen can be supplied to the soil by growing clover, alfalfa and other legumes, but in this vicinity we have had trouble in getting good even stands of clover on land that will grow good crops of corn, wheat and potatoes. We conclude that the soil needs lime and perhaps potash also, and several farmers in this vicinity are going to sow ground limestone this spring. Now we are told that to supply the soil with phosphorus and potash we must sow some form of commercial fertilizer which contains those elements, but in the highest grade of fertilizer of which we have the analysis there is only 16 per cent phosphoric acid and two per cent potash so that in a ton we would get only 360 lbs. of those elements which the soil needs and would have to pay for and handle 1,640 lbs. of material which is of no benefit to the soil, which seems to me to be a waste of money and labor. Also the analysis of one brand of fertilizer gives one per cent of nitrogen equal to 1.25 per cent ammonia and one per cent of potash (K₂O) equal to 1.85 per cent of sulphate of potash, all of which leads me to ask the following questions, which I hope you will answer in the Michigan Farmer:

A.—Are nitrogen and ammonia the same element or does nitrogen in the soil change to ammonia?

B.—What is the difference between potash (K₂O) and sulphate of potash?

C.—How many pounds each of nitrogen, phosphoric acid and potash should a cubic foot of fertile soil contain?

D.—What form of potash is best to sow and how much per acre should be sown if we sow two tons of limestone per acre?

E.—How much phosphate testing 14 per cent to 16 per cent available phosphoric acid should we sow per acre?

F.—Is there any danger of sowing too much phosphate or potash?

St. Joseph Co.

R. B.

A.—Nitrogen is an element; ammonia is a compound of nitrogen and hydrogen. When ammonia is spoken of in a fertilizer the same constituent is meant as when nitrogen is mentioned. The ratio between nitrogen and ammonia is as 14:17. That is, if in a fertilizer the percentage of nitrogen is given, then by multiplying the percentage by 17 and dividing that result by 14, the corresponding element in terms of ammonia will be found.

B.—Potash is quite commonly spoken of in discussing the element potassium in fertilizers, almost in the same way that ammonia is spoken of when discussing the element, nitrogen. Potash really is a compound consisting of one part oxygen to two parts of potassium, written K₂O. Now, sulphate of potassium is potash (K₂O) plus sulphuric acid (SO₃), or K₂O plus SO₃, which is K₂SO₄, which is sulphate of potash. If the percentage of potash is given and one desires to know what its equivalent is as sulphate of potash, he may multiply the percentage of potash by 174 and divide the result by 94. The result will be the equivalent in terms of sulphate of potash. One should bear in mind that if a fertilizer guaranty states that it contains 14 lbs. of nitrogen, 17 lbs. of ammonia, 94 lbs. of potash and 174 lbs. of sulphate of potash, the fertilizing value is not equivalent to the sum of all these amounts, for 14 lbs. of nitrogen and 17 lbs. of ammonia are the same amount expressed in different terms, and 94 lbs. of potash and 174 lbs. of sulphate of potash are exactly the same thing, but expressed in different equivalents.

C.—A fertile soil will contain, perhaps, on the average, four tons of potash per acre, three tons of phosphoric acid per acre, two tons of nitrogen per acre, figuring on the first surface foot of the soil.

D.—We think the best form of potash to be used, if it can be obtained, is carbonate of potash, the form in which potash exists in wood ashes. The amount to be sown depends entirely upon the soil and crop under cultivation. If wood ashes are obtained it may not be necessary to use limestone in connection therewith. If not we should use from 300 to 500 lbs. per acre in connection with the limestone.

E.—The same answer may apply to this question regarding available phosphoric acid as given under "D."

D.—If ground green or steamed bone is applied there need be no apprehension regarding the excess but if acid phosphate is used we should prefer to use it in connection with some organic manure.

F.—If fertilizers are used in connection with an organic manure there is little danger in using too much.

Horticulture.

BORDEAUX INJURY OF FRUIT.

Until just a few years ago Bordeaux mixture was considered the best fungicide for all fruit troubles of a fungus nature. It was Bordeaux injury which knocked it from its pedestal of prominence, and brought forth lime-sulphur as an efficient summer fungicide.

The Bordeaux injury which is familiar to many fruit growers is mainly found on the fruit, although sometimes the foliage is slightly injured. The russetting caused by Bordeaux injury often deforms the fruit as in a bad case of russetting where the fruit is lop-sided, the side of the apple russeted does not grow normally. The fruit often cracks, as in bad cases of scab, and in some varieties, the Ben Davis for instance, it will cause teat-like protuberances which are russeted. Greenings and Baldwins have become so russeted that they resembled Russet apples more than they did themselves. Varieties so injured will not keep as long as ordinarily because they do not have the natural oiliness of the skin which prevents the evaporation of moisture from the inside and shrinking. They will be liable to shrivel like the Russet. The market value of such fruit is, of course, considerably below par.

The cause of Bordeaux injury is supposed to be due to the action of the copper sulphate or blue vitriol. It is more prevalent when we have considerable wet weather. Then the lime of the Bordeaux mixture unites with the excessive moisture, or rather, is washed out of the Bordeaux on the tree and free copper sulphate is left, and it is very caustic.

A few years ago we carried out an experiment to learn something of Bordeaux injury which gave us interesting results. We tried to find out which spraying caused the Bordeaux injury and we had the experimental plots so arranged that one of the usual sprayings of Bordeaux was skipped on each plot, the arrangement being so that no two plots had the same application left out. We found that all of the applications except the one in August, would cause the injury, the spraying before the blossoms being no exception.

A great many growers, thinking that the spraying before the blossoms would cause no injury, used Bordeaux because they thought it was a better fungicide than the lime-sulphur, and they have in many cases had serious injury. The writer saw Ben Davis apples last year which had very serious Bordeaux injury from just the one spraying of Bordeaux before the blossoms opened.

Two of our experimental plots were sprayed just alike before the blossoms opened. They were sprayed on the same day and on the same variety of fruit and the making of the Bordeaux was as near the same as we could make it in both cases. On one plot we had injury and on the other none. The only way we could account for the difference in the results was in the making of the two batches. There was undoubtedly some slight difference in the way the two batches were put together which caused the one to burn and the other not. So we may have two causes for Bordeaux injury, weather conditions and the manner of mixing.

There is considerable difference as to the susceptibility of varieties to the Bordeaux injury. Ben Davis, R. I. Greening, Jonathan, Wagener, Baldwin, King, Yellow Transparent and Winter Banana, are quite susceptible to injury. The Northern Spy, Duchess, Red Canada, Spitzenburg, Fall Pippin, and Snow are not very susceptible.

Van Buren Co. FRANK A. WILKEN.

IS A GARDEN WORTH WHILE?

At first thought, the question, is a garden worth while? may seem somewhat puerile. But anyone who will take the trouble to make a journey through the country in the last days of June or first days of July, will soon discover that there are reasons enough for asking the question. Perhaps it will be well to state in the beginning, that the term garden as used here, does not mean a patch of pig weeds and quack grass with a fence around it, neither does it mean a strip of ground adjacent to the hog pasture, with little or no fence between.

In considering the question as to whether or not a garden pays, the first point brought up in serious objection is that of labor. When a farmer is rushed with work and can hardly find time to put in his spring crops, he is apt to regard the garden as a sort of necessary evil—a nuisance that must have some degree of attention, sooner or later, and it is generally later. In justice to a host of successful farmers, let it be said, however, that they pay as much attention to the garden as to any other farm work, and consider it of as much importance. It is true, though, that there are good farmers who are skeptical about the garden proposition. An easy way to settle the question is to place the figures of labor beside the figures of the cost of garden products at the local market prices. Measured in this way, it will be found that few, if any, crops pay better than a good garden, and that time, labor, and the ground can not be used to better advantage.

In investigating the garden question, the observer is not long in reaching the conclusion that the successfully conducted farms and well-kept homes generally mean good gardens, while slovenly, ill-kept places and unprofitable farming operations are apt to mean the reverse. Ask the first-class farmers whether a garden is worth while, and you will receive an emphatic answer in the affirmative. Ask the second-class, and, of course, you will be unable to get a satisfactory answer.

In farming, as in everything else, it is the little things that count. Whatever adds to the farmer's independence and comfort is certainly worth while. In these days of high prices, more than ever before, the more nearly the farmer can come to growing what he consumes, the more nearly has he solved the problem of subsistence and success. The man who is harvesting early potatoes of his own growing while his neighbor is paying 40 cents a peck for tubers at the village store, is the man who has grasped the full significance of the advantages the farm affords. Likewise, the farmer who pays 12 or 15 cents a quart for berries during the berry season when, with a little time and labor, he might have them in plenty on his own farm, has not yet attained to the full significance of the advantage he possesses over those who are not tillers of the soil.

In canvassing a farming community to get the sentiment in regard to this subject, it is probable that the farmers' wives, at least, would answer unanimously in favor of the good garden proposition. They are the ones who have to solve the problem of preparing the meals from day to day, and they know better than anyone else, what a good garden really means. They can answer from the standpoint of economy and from the broader standpoint of wholesome, comfortable living. To buy the vegetables and small fruit means an enormous unnecessary expense. To go without them means poor management and unnecessary denial. From the viewpoint of health as well as from that of economy and comfort, every farm should have a good garden—a garden in which rhubarb and asparagus and the earliest products can be secured, and in which throughout the summer, the various garden products can be obtained in their turn. In the summer, a good garden is half the farmer's living, and then some, and whether he owns one acre or an entire section, gardening is certainly worth while.

Hillsdale Co. J. A. KAISER.

LATE CELERY FOR WINTER USE.

Last year we had the finest lot of celery ever seen in this locality, and here is how it was grown:

The plants were grown in very rich soil and thinned so that none were small and spindling. No weeds were allowed to grow among the plants. After the plants were four or five inches high, the tips of the leaves were shorn off, so as to cause the plants to grow stalky. During dry weather the celery plants were thoroughly sprinkled, every evening. The tips of the leaves were again shorn, about two weeks after the first clipping. In doing this, there is danger of injuring the plants. Only the top section of the larger leaves should be removed.

All this may seem to be a great deal of unnecessary work; but it is simply time wasted to set out small spindling celery plants. Good celery cannot be grown without considerable work.

Late celery plants should never be started in the house. That is, late varieties should always be sown in open ground. April or May is early enough here in Ohio. When celery is wanted for late fall and winter use, the plants may be set out any time from July to September, with good results. Ours were transplanted last year on August 21. After the ground had been thoroughly spaded, the plants were set in double rows about one foot apart and six or eight inches in the row. The advantage in the double rows is that when drawing the earth up around the plants to blanch, two rows are as easy to handle as one. Plants were set in rows on a level surface. Trenches have always proven unsatisfactory here. To be at its best, celery should be grown quickly. Stringy or hollow celery is very poor eating. And unless there is plenty of plant food and moisture in the soil, the celery will be full of strings. To promote rapid growth keep the roots cool and damp. Late planting is conducive to rapid growth because the late summer and fall months are cooler, as a rule, and there is usually more rain than there is earlier.

After the plants started they were not disturbed for about a week. Then the soil was loosened a little. In dry weather the plants require more care. Unless the soil is kept moist they will be very slow to start. It is best to postpone cultivation until after a good, soaking rain. Then use a hoe or similar implement to loosen up the soil.

After the surface was thoroughly cultivated it was covered about an inch deep with manure from the poultry house. Needless to say, the manure must not come in contact with the plants. That is, it should be carefully spread around the plants, not among the stalks. When properly used it is an excellent fertilizer for celery as well as for various other crops. When carelessly used, it does more harm than good.

After the hen manure was put on nothing more was done for about two weeks. In the meantime, there had been several soaking rains, which was exactly what we wanted. Without these rains the top-dressing would not have benefited the plants. The soil was again loosened with a hoe. Another good rain came and by this time the plants were growing fine.

At this stage the blanching process began. We think it best to begin drawing up the soil as soon as the plants get well started. Some growers do not begin to blanch their celery until it is nearly full size and as a result there are more green stalks in the bunches than blanching ones. Plants grow very fast after the ridging or banking process is begun. The roots are kept much cooler than where boards or any light material is used. Every few days a little more earth is drawn up around the plants as they grow. After this the celery will need very little attention until ready for use, except banking up a little, as the plants grow. The work should be done when there is no surplus moisture. If either the plants or the soil is wet when banking, it will cause the celery to rot or rust. Some growers wrap paper loosely around the plants before beginning to draw up the earth, to keep the stalks clean.

Ohio. ANNA W. GALLIGHER.

STRAWBERRIES PROMISE WELL.

May first I finished loosening the mulch over the strawberry plants, that the new growth might come out with the least possible obstruction, and still have a maximum amount of the surface protected with the straw mulch. To be sure, some growth had been made prior to this time, but a close watch was kept to make sure that no injury to the plants was taking place, while I was attending to some work that was more pressing. In loosening the mulch, any surface between the rows not protected with straw was raked loose with a garden rake. As soon as possible more straw will be applied, that evaporation may be reduced to the minimum. The plants covered with forest leaves, required but little assistance in pushing up through the covering, and even under the coarse, unthreshed rye straw, the new growth was normal in color, so it is evident that plenty of light was penetrating the mulch; still there were places where it seemed necessary to part the covering, in order that the new leaves and fruit buds might grow up less obstructed.

M. N. EDGERTON.

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Live Stock.

REARING ORPHAN COLT BY HAND.

Please tell me how to raise a colt without the aid of its mother.

Grand Traverse Co., R. A. W.

First of all, it should be thoroughly understood that nearly every new-born colt runs a risk of losing its life from two principal causes; namely, the bowels are invariably costive—the first milk taken from udder of mother acts as a laxative, consequently the foal that nurses receives the benefit of this laxative and unloads and eliminates the excrement which usually packs the posterior bowels quite full. It is very important that the orphan colt should be given a tablespoonful of castor oil alone; a glycerine suppository or a small piece of soap be placed in rectum to lubricate the bowel, or an ounce or two of olive oil be injected gently into rectum in order that this waxy excrement might be gotten rid of. Immediately after birth the navel cord should be treated in the following manner: Wash the cord with a solution made by dissolving one ounce of carbolic acid in a quart of clean water; or use one part corrosive sublimate to 1,000 parts water, then tie cord with a silk or linen string that has been thoroughly soaked in either of these solutions. The end of cord should be saturated with Lugol's solution, which is composed of 25 parts of iodine, four parts iodide of potassium and eight or ten hundred parts water. Or you may apply a dusting powder composed of equal parts powdered alum, oxide of zinc, boracic acid with a little camphor added. I have also obtained very good results by applying one part iodine and 99 parts liquid collodion. There are many other home healing remedies that seem to give good results and if you have nothing else on hand, use the first mentioned lotion until the navel heals perfectly. It is needless for me to say that the stall where the colt is kept should be thoroughly disinfected and kept clean and free from filthy bedding.

Now, regarding the food supply, which is cow's milk. Select milk from a healthy cow that has recently freshened, but be sure and add one-fourth its volume of boiled water. Also add a little sugar to each meal. Kindly understand that a very young colt should be fed every two hours until it is a few days old, then the time between feeding may be gradually lengthened. It must also be understood that feeding utensils should be kept scrupulously clean, giving them much the same attention as is given in child feeding, for if this is not done the colt is almost certain to suffer from bacterial infection of the bowels. It is also important that the milk should be given at blood temperature. After the colt is a few weeks old, add some of the pulp made by boiling beans or peas or oil meal and remove the skins by pressing the pulp through a sieve. At ten or twelve weeks of age the colt will then eat considerable grass, crushed oats and, when changing from fresh cow's milk to separator milk, it is necessary to reduce the quantity of milk fed for fear of inducing too much bowel action. I have thought that as soon as a colt would eat enough of other food, besides milk, it was no bad plan to discontinue the milk. A colt reared by hand can usually and safely be weaned at four or five months. It is also important that the colt have the companionship of other colts, or horses; they do not seem to thrive and do as well when alone. This, perhaps, is on account of them not taking sufficient exercise and the bowels and kidneys not acting free enough. Besides, plenty of exercise induces appetite.

On my father's stock farm in Canada many years ago we attempted to raise orphan colts occasionally, but invariably lost them all; this, I now feel sure, was for lack of knowledge, not only in feeding, but the early treatment of the navel. In some cases they died from joint ill, doubtless caused from navel infection, which can now easily be prevented; furthermore, I am sure that we were not painstaking enough in thoroughly cleaning and airing their feeding utensils; besides, we failed to dilute their milk and did not add sugar. However, during the past 25 years, I have raised orphan colts in the manner which I have described and some of them appeared to thrive fully as well as colts raised by a poor milking

mother. During the time they were fed milk I found it necessary to give them an occasional dose of raw linseed oil, castor oil or olive oil to open their bowels. I am sure it is also important to furnish the colt plenty of clean drinking water. I invariably added a small quantity of salt to their food daily, besides gave them some cooking soda in their skim-milk.

Ohio, DR. W. C. FAIR.

SUMMER MANAGEMENT OF THE BROOD SOWS.

On some farms the brood sows are shut up to wean the pigs and are then kept confined the remainder of the summer and fall. All farmers should know that good results from the sows in the future cannot be expected where this sort of management is given. In order to maintain a strong vitality, a brood sow demands exercise—all she cares to take—and a variety of feed. Both of these she will get if she has access to good pasture during the summer.

As it is not desirable to feed both brood sows and pigs together, and as most farmers have but one pasture, some means must be contrived for separating the two classes at feeding time. This can be accomplished by nailing slats across the feed floor door at such distances apart as will admit the pigs and at the same time bar the older hogs. Farmers who do not have a feeding floor can accomplish the same end by constructing a board or rail pen in which to feed the pigs while the older hogs are fed outside. Separate pastures are advisable, however, when they can be had.

Confinement and a corn ration alone spoil more brood sows and sires than all other mistakes combined. Far too many farmers feed all their hogs together. It has always been our own experience, and neighbor farmers report like results, that when the brood sows are permitted to run with the fattening hogs during the summer and fall right up to farrowing time, poor litters of pigs are farrowed. Many of the pigs are born dead and many others do not survive more than a few days. The same results will follow when the sows are separated from the other hogs if the sows are fed largely on corn. Give the brood sows the run of a pasture and they will pick up most of their living and keep healthy; shut them up in a lot or feed them with the fattening hogs and they will lose stamina and disappoint their owner at farrowing time.

For about a month previous to farrowing the demands of the brood sows are rather heavy, and some feed in addition to that picked up in the pasture should be given. An all corn ration should not be given, however. The demands of the sows are for material to make bone, muscle, etc., in the unborn pigs. This calls for a growing ration and not a fattening one, such as corn. Nothing is better for the sows than a ration composed of oats, wheat bran, and oil meal several times a week. All these are rich in bone-making material. Oats are particularly good for keeping up a high vitality and the sows always relish this grain. Bran has a good effect upon the digestive tract and it also contains a fair amount of protein. The oil meal furnishes the real protein portion of such a ration, however, and it has a slightly laxative effect that gives vigor to the system. The best method of feeding such a ration is to wet it and place it in troughs. Don't add enough water, however, to make the mess sloppy, for the sows will drink the slop rapidly and do very little masticating. What water the sows require should be supplied in a separate trough.

Indiana, W. F. PURDUE.

During the first four months of the present year 364,256 cattle of the stocker and feeder class were shipped from Kansas City, Omaha, St. Joseph and Sioux City into feeding districts, an increase of 75,632 head over such shipments made in the like period a year ago.

Iowa's animal health commission has barred importation and distribution in that state of several herds of cattle affected with tuberculosis, and the commission is exercising diligence in preventing the dumping of undesirable stock on Iowa from Illinois, New York and other states. Several herds have been tested, and in some cases it was found that 100 per cent were bad; in others 60 per cent were affected, while other tests have shown smaller numbers of tubercular animals.

Dairy.

CONDUCTED BY COLON C. LILLIE.

HOW TO MILK A COW PROPERLY.

The old saying "That any fool can milk a cow but it takes a wise man to feed it," may have something in it, but there is much to be said about how a cow should be milked, I'm sure. Why is it some men can milk more cows than others in a certain time, when they apparently milk about as fast? What makes some cows strippers, if not from poor milkers? If you can put in an article on "How a cow should be properly milked," I am sure it would be instructive to many and greatly appreciated.

Charlevoix Co.

W. M. S.

Milking is an art, and not only this, but it is an art that it seems impossible for everybody to acquire. There are more poor milkers than there are good ones, many times more. The reason why many cows do not give more milk is because they are improperly milked, because people milk them who do not know how to milk, or haven't the proper strength in their hands or the necessary qualities in their makeup to do it as it ought to be done. The cow should be milked as rapidly as possible. Experiments go to show that the man who can milk cows the quickest gets the most milk in a year. The slow milker tends to dry up the cow or he does not in any way develop the cow. In milking the cow one should never strip with the thumb and finger. This is absolutely wrong. The teat should be grasped with the whole hand. If the teat is rather short grasp it with the little finger and the next to the middle finger and have the rest of the hand up on the udder. Don't grasp it with the thumb and finger and attempt to milk in that way. Milking consists of manipulating the udder at the same time the milk is drawn from it, and unless one learns to successfully manipulate the udder he is not a first-class milker. The cows with reasonable sized teats, that is, those large enough so that a man can get a full hand hold on the teats, are the ones to be desired. Then, of course, one should reach up on the quarter of the udder with the thumb and forefinger every time before he squeezes the teats to get the milk. The thumb and forefinger working up on the quarter of the udder tends to bring the milk down into the teats, and then it is squeezed out by the rest of the hand. Just opening and closing the hand on the teat is not milking. You have got to manipulate the udder with the thumb and forefinger so as to bring the milk down into the teat before you can get out any great amount of it, and it is this manipulation of the udder which tends to increase the secretion of milk in the udder. With proper manipulation at the time of milking the cow will secrete more milk. Very little stripping should be done. The milk should all be taken from the udder without stripping. It is a good plan after one is practically through milking to go around to each teat, using one hand to press the milk out and the other hand to manipulate the udder. For instance, grasping the teat in the right hand and with the left hand gently pressing on the quarter of the udder with a downward pressure, will bring the milk down into the teat and then it can be squeezed out with the right hand. Going around to each teat in this way twice will take every particle of milk out of the cow's udder and there is no necessity of the thumb and finger stripping. Milking fairly rapid and milking thoroughly and leaving no milk in the udder encourages the cow to give larger quantities of milk, in other words, it develops her.

The fact that there are comparatively few good milkers makes the milking machine necessary. No one would think of having a milking machine if he could get good milkers and rely upon them. There is no question in my mind but what a first-class milker is better than a milking machine. On the other hand, there are so few first-class milkers that I believe the milking machine is fully as good as the average milker. The cows are sensitive creatures. When a cow gets used to one person milking she gives her milk down more readily. Continually changing milkers is poor practice. The cow wants the same person to milk her. If he is a good milker she will hold out on the flow of her milk longer than where frequent changes are made. Where the change is made from a good milker to a poor milker it is very noticeable in the yield of milk. The cow will hold up her milk, and not only that but it will gradually decrease in

quantity. Many times where a cow is not yielding what she ought to the fault is a poor milker, and when a good milker takes hold of the cow he can increase the flow of milk quite perceptibly. This is one of the most annoying things in the dairy business, the fact that, while men are willing to milk, many of them are not good milkers. They don't seem to understand the art and they can't perform the work in such a way as to properly develop a cow or hold her to a normal flow of milk.

PRACTICAL METHOD OF PREVENTING THE UNNECESSARY WASTE OF CONDEMNED MILK.

It is the custom of officials in many cities to condemn milk because of the failure of the milk dealers to comply with certain temperature standards. Usually this milk is disposed of by emptying it into the gutter, though some attempts have been made to denature the milk by adding certain substances which would render it unfit for use in this fluid state. It is unfortunate that this milk, which is valuable for feeding farm animals, should be needlessly wasted. This loss can be prevented if the milk is returned to the farms, where it can be utilized for feeding live stock. Condemned milk could also be used in the city for making casein and for other purposes.

The Department of Agriculture has recently conducted some experiments in order to devise some practical method of denaturing milk so that its sale as market milk may be prevented and yet leave it in a condition suitable for feeding farm animals. The work thus far has proved that the use of a rennet solution is effective for this purpose at the usual temperature at which milk is condemned.

In these experiments a three per cent water solution made from powdered rennet of a strength of one to 30,000 was used, and 40 cubic centimeters of this solution were added to five-gallon cans of milk at different temperatures. The tests were made in a room where the temperature was 80 degrees F., as that is about the temperature of the air in summer when most of the milk is condemned. In one test the rennet solution was added to a five-gallon can of milk at a temperature of 50 degrees F. In one hour and 15 minutes the milk was slightly thickened, its temperature then being 57 degrees. Thirty minutes later the temperature had reached 59 degrees and a soft curd formed. An equal amount of milk at an initial temperature of 65 degrees was treated at the same time. In one hour and 10 minutes the milk in this can was firmly coagulated, and it is probable that the rennet had produced the desired effect in much less time. At the end of this period the temperature had been raised only 1.2 degree, or to 66.2 degrees F.

In the light of these experiments it is believed that if a rennet solution of this strength is added to condemned market milk satisfactory results can be secured under ordinary conditions without the disadvantages of the other methods which have been tried.

If a three per cent solution is made from rennet, strength of one to 30,000, about 2½ ounces (80 cubic centimeters) of this solution will be required for a 10-gallon can of milk at a temperature of 53 degrees or higher. The cost of the material for this method of denaturing is very small, being only about three and one-third cents for a 10-gallon can when powdered rennet costs \$7 a pound.

It is recommended that those who contemplate using this method should test their solutions in the laboratory before using them in practice, so as to know definitely the strength of each solution prepared.

DAIRY NOTES.

Specialists not only discard but condemn soap in cleansing milk utensils. Washing soda or common baking soda is very much better. Soap makes them sticky, and does not take hold of the dirt like either soda or some of the washing powders.

Water may be clear and still unfit for use. If it is suspected that it is charged with organic impurities, one test is pouring a few drops of permanganate of potash into a glass of it. The color is at once changed to a rich red. If this is permanent, you may feel that it is reasonably free from organic impurities—though other tests are required before it can be guaranteed as pure; but if it becomes discolored or brownish, the water is unsafe.

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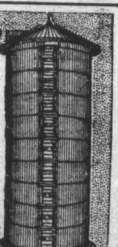
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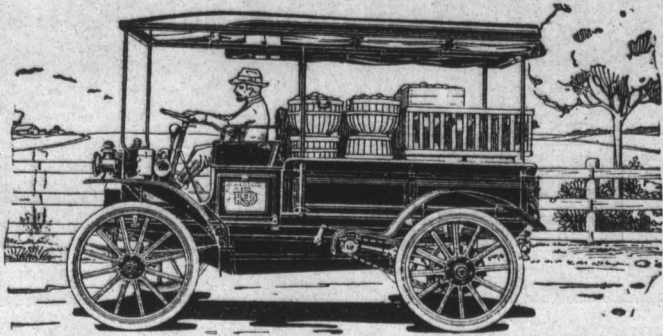
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EGGS, Etc.—Small consignments from producers in Michigan bring very attractive prices. Returns day of arrival. Refer to Mich. Farmer, Dun's or Bradstreets. **Zenith Butter & Egg Co., 255-59 Greenwich St., New York, N.Y.**

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Eggs, Eggs—Barred Rock, first few mated with okls. direct from Bradley Bros., \$3 per 13, Utility flock, \$2 per 15. **A. A. PATULLO, Deckerville, Mich.**

FOR SALE—Eggs from prize winning R.C.R.I. Reds, \$1.00 per 15. Eggs from standard bred fawn & white Ind. Runner Ducks. White eggs strain, \$1.00 per 12. Coy G. Brum, Nashville, Mich.

BRED TO LAY—S. C. Buff Leghorns Eggs 10c. Chix 2c. **J. H. STEPHENSON, Boyne Falls, Michigan.**

BARGAINS in Standard Bred R. I. Reds, Af. geese and I. R. ducks. All 1913 breeders going at half value. Write for prices. 26 R. I. Red eggs postpaid \$1.50, by express 30 for \$1.25. Best pens \$1 per 15 postpaid. **FRENCH FRUIT & POULTRY FARM, Ledington, Michigan.**

COCKERELS FOR SALE—Pure bred, farm raised White Leghorns and White Wyandottes \$1 each. Also eggs for hatching \$1 for 15. \$4 per 100. **O. D. STUART, Riverside, Michigan.**

S. C. B. Minorca Cockerels and P. C. Fall Pigs. Satisfaction guaranteed. **R. W. Mills, Saline, Mich.**

Prize Winning Barred Rock, R. I. Reds, Mammoth Pekin and I. Runner Ducks. Stock for sale. Eggs \$1.50, \$2.50, per set. Utility \$5 per 100. **EMWOOD FARM, R. R. No. 13, Grand Rapids, Mich.**

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POSE COMB BROWN LEGHORNS from Mad. Square Garden. Runners, eggs and day-old chicks our specialty. Also Mam. Pekin Duck eggs. **Claudia Betts, Hillsdale, Mich.**

CRYSTAL WHITE ORPINGTONS—Excellent laying strain, eggs at half price. Breeding stock at greatly reduced prices after May 1st. Mating list. **MRS. WILLIS HUGH, Pine Crest Farm, Royal Oak, Mich.**

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R. P. Rocks, R. I. Reds, and S. O. W. Leghorn eggs for sale. 15 for \$1; 25 for \$1.50; 50 for \$2.50. **COLON C. LILLIE, Cooresville, Mich.**

SILVER LACED, golden and white Wyandottes. Eggs for hatching at reasonable prices; send for circular. **Browning's Wyandotte Farm, R. 30, Portland, Mich.**

WHITE ROCK, S. C. WHITE LEGHORN, BLACK Spanish and Indian Runner duck eggs, 15, \$1.25; 30, \$2; 50 \$3; 100, \$5. **G. N. BURT, Oakwood, Ohio.**

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White Wyandottes—Snow white. Winter laying strain. Eggs for hatching. Send for 1913 circular. **David Ray, 202 Forest Ave., Ypsilanti, Mich.**

WHITE LEGHORNS—"Wyckoff Strain", stock chix & eggs, circular free. **Maple City Poultry Plant, Box O, Charlotte, Mich.**

White Wyandottes—Noted for size, vigor and egg production. 1913 circular ready in February. **A. FRANKLIN SMITH, Ann Arbor, Mich.**

DOGS.

HOUNDS FOR HUNTING Fox, Coon, Skunk, Rabbits and Ferrets. Send 2c stamp. **W. E. LECKY, Holmesville, Ohio.**

FOX AND WOLF HOUNDS of the best English strains in America; 40 years experience in breeding these fine hounds for my own sport. I now offer them for sale. Send stamp for Catalogue. **T. B. HUBBARD, Sibley, Jackson Co., Mo.**

Poultry and Bees.

COMBATING GAPE IN CHICKS.

Gapes are more easily prevented than cured. Do not wait until chicks become infected before adopting preventive measures. If the chicks are reared on the same small plot of ground each season, then the ground must be treated to prevent infection. Cover the entire yard with air-slaked lime and then spade it under. Lime has a tendency to sweeten the soil. Do this each season and the danger of gape infection will be small. Sowing grain in the yards is also an effective means of purifying the ground. Rye, oats or other quick growing grain is excellent for this purpose. The sowing should be done before the chicks are allowed in the yard.

Gapes are caused by small worms that lodge in the windpipe and cause suffocation. The object of treatment, then, is to remove the worms. Gapeworm extractors can be purchased that will remove them, or one can easily be made from a piece of thin wire, forming it in the shape of a loop. A loop of twisted horsehair will also answer the purpose. Insert either one of these gently into the windpipe of the chick and pull it out with a twisting motion. Burn all worms removed, also all chicks that have died of gapes. Clean out and disinfect the drinking vessels; also the brood coops. Never use coops for new broods in which chicks infected with gapes have been raised without first disinfecting them. White-wash them thoroughly, adding a little crude carbolic acid to the whitewash. Then spray inside and outside of coop with a good coal-tar preparation. Also spray all feed troughs with the same solution. Keep a good disinfectant in the drinking water. Copperas or permanganate of potash is excellent.

Indiana. **O. E. HACHMAN.**

WHEN TO SELL SURPLUS STOCK.

Success or failure in any line of farming depends as much upon the marketing of farm produce as upon the producing of the stuff. A good many farmers who have been successful in getting out a bunch of early-hatched pullets, make the mistake of marketing them as broilers when they would be worth much more as layers next fall. As a rule, it does not pay to market these early-hatched, pullets, even at fancy broiler prices, because it's these that must be depended upon to produce next winter's eggs.

Then, again, there are some farmers who do not know that there is a good market, at fancy prices, for early-hatched cockerels weighing between a pound and two pounds apiece. I have in a good many instances realized more for "broiler" cockerels, weighing a pound and over, when marketed in April, May and June, than I would have received for the same birds had they been fed until September or October. I have raised many a flock of early chicks, marketed the cockerels as broilers at the proper time and realized enough from them to pay for their feed and that of the pullets up to laying age.

I have always found it advisable and profitable to sell the cockerels, especially the early-hatched ones, just as soon as they can be made to meet the requirements of the market at the time. During April and May I have realized as much as \$8 per dozen for 1½-lb. cockerels, and in exceptional cases more. During June, and often until late in July, from \$5 to \$6 per dozen for broilers weighing around 1½ lbs. each may be obtained. In one special market we are realizing as much as 60 cents per lb. for 2-lb. broilers as late as August. You can rest assured that the end of the season will see no male birds on our place, except those intended for breeders. The plain truth is that they will bring more at about 2 lbs. than in the fall when weighing twice as much.

There is a handsome profit in rearing chicks to two months old to sell for 60 cents or more, and but little or none at all in keeping them to four or five months old and selling them for about 30 or 35 cents. For these reasons it behooves all farmers and poultrymen to dispose of their cockerels promptly.

Then again, the pullets are thus afforded more room, grow better and lay earlier. It is safe to say that a flock of

pullets from which the cockerels have been removed before they become troublesome, will come to maturity a month earlier than will one in which the cockerels are allowed to run all fall and summer.

Then, besides the cockerels, there is always a number of old hens. It never pays to overstock, so enough old stock should be sold each year to keep the flock down to whatever size can be most profitably kept. Like the cockerels, old hens can be sold to best advantage early, or before the young stock is thrown freely upon the market. After the active laying season is over these old hens will not be doing very much laying, and then is the time to market them. I have always found it advisable and profitable to begin disposing of them as early as May, and all that we had to sell went before the close of June. At this time they are in the best marketable condition, and bring about, or nearly at least, twice as much as in the late fall. Then, too, it is very hard to get old hens into good marketable shape in the fall when they are moulting. During the moult they eat more than otherwise, some are lost, they get poorer, the market declines rapidly, and when you dispose of them they realize not nearly as much as they would have if sold a few months earlier.

For most farmers it is usually advisable to sell all kinds of poultry through some reliable commission merchant, rather than to local buyers, because they cannot sell it better than you can, and you can rest assured, they are not in the business for glory. It is no trouble to get the name of a reliable commission merchant in some large city, and a card will bring, by return mail, shipping tags and full directions for preparing for market and shipping. Most commission merchants always have some crates and coops on hand which they will gladly ship you.

When you come to cooping the fowls, make it a rule never to overcrowd, and ship preferably on Wednesday or Thursday mornings. Have two tags on each coop, one on each end, bearing your name and address and that of the commission merchant.

New York.

F. W. KAZMEIER.

CLIPPING OF QUEENS.

It is desirable, especially with beekeepers who cannot keep close watch of their bees during the swarming season, to clip the queen's wings. A hive with such a queen may cast a swarm, but it will not abscond to parts unknown, as the queen will be unable to fly and the swarm will return. The losing of swarms, the trouble of separating two or more swarms that clustered together and the finding of the queen for each one, and the difficulty in having a swarm perched in some high tree, are some of the reasons beekeepers clip queens.

No better time can be found to clip queens than in the spring. Bees are then fewest in numbers and the finding of the queen is an easy task. A few hints for the easy finding of the queen may be helpful. Open the hive with little or no smoke. Do not puff smoke down between the frames; if any is needed have it float over the frames. Sit down with your back toward the hive, so that light strikes into the hive. Take out one of the middle frames after first crowding over the others a little. Look at the exposed side of comb in the hive first, later on both sides of comb in your hands. If queen is not found, lean comb on the outside of hive and take next frame out, always glancing on side of comb in the hive first. Queens may be found in most cases the first time over the frames. If not, close the hive and try again when the bees have quieted down.

To clip a queen's wing, which should never be done until she has shown herself to be a layer, take hold of her wings with the right thumb and index finger—never grasp her body, especially her abdomen—raise her off the comb, place her gently on the left hand and press on her feet with the left thumb sufficiently to hold her. Now, with the right hand, by use of a small delicate pair of scissors, cut off about one-half of one of the front or primary wings. This method is easy and quick, and prevents the cutting off of a leg.

Shiawassee Co.

N. F. GUTH.

Farm Commerce.

ECONOMIZING BY TAKING ADVANTAGE OF LOCAL CONDITIONS.

The farmers of Pier Cove, Allegan county, Michigan, are making use of a mill dam that has survived the mill, which now is in ruins. A steel bridge is suspended across the dam and to the railing of this structure have been bolted a number of force pumps. The farmers drive their spray carts on the bridge and then proceed to fill the barrels from the abundant supply of water in the dam. The water is then hauled to a mixing shed where the spray mixture is added.

There is another service at Pier Cove that reflects credit upon the men of that section. It is the use made of conditions there to facilitate the handling of fruit. There is nothing to attract attention save a long pier built far out into Lake Michigan, and a storage house at the land end of it. On top of the pier extends a T rail track on which are operated a pair of long wide-bed cars. The cars are loaded with filled barrels, crates, and baskets

er of the navigation months of this year.

In the rear of the storage house is a capacious drive-way in which may be seen at times all the way from five to 25 loaded vehicles waiting their turns to unload. The line of teams reaches far out on the country roads in two directions. It is a common thing for a steamer to stop two hours to load at this pier, and there have been occasions when the one little pier furnished a whole ship load.

There isn't a thing that grows on vine or tree in this entire community that is not subjected to repeated doses of the stuff manufactured from the water of this old dam. All of it is made after approved formula. It is believed to be among the best tilled and most prolific fruit farming regions in the great Wolverine domain.

Illinois.

J. L. GRAFF.

ADVERTISING THE APPLE.

To the uninformed the first question that possesses the mind when it is stated that the apple is to be systematically advertised in all the markets of the country and Canada, is, "How will the advertising expenses be distributed properly among those benefited by the publicity work?" The answer is found in the stamp plan. The details of this plan are as follows: The stamps will be issued in two denominations—one cent and two cent. On every box of apples a one-cent stamp will be placed, and for every barrel a two-cent stamp will be used. The man who has 50 packages to market will buy 50 stamps, while he who has 1,000 packages will buy 1,000 stamps, etc. The entire issue of stamps will be in the custody of a Trust Company, who will act as trustees of the fund. This Trust Company, through banks in the various sections of the country, will sell the stamps to every grower and shipper or dealer who applies for them, either in person or by mail. The stamps will be placed on sale in the various distributing agencies on August 1, 1913, in time to create an adequate fund for advertising the new apple crop.

There are definite purposes for which this fund will be used. It will provide the means for carrying on a continuous, country-wide advertising campaign, through newspapers, magazines, printed matter and other media, that will acquaint the masses of the United States and Canada with the great food and health-giving value of the apple; with the fact that it is open to a wider range of uses than any other product, easily prepared, easily digested, and appetizing to all; and with the further fact that, when bought in substantial quantities, it is one of the most economical foods. It will furnish the money for an educational propaganda among retailers, convincing them that moderate profits and many

markets and observed that where apples, bananas and citrus fruits were displayed only about 25 per cent of the buyers bought apples. General observation would indicate that the above is about an average percentage of apple purchases to the sales of other fruits. Nor is the apple used as generally in the kitchen as formerly, other kinds of fruits and foods are being allowed to take its place. Among the poorer families of our cities apples are as much of a luxury today as oranges were several years ago. Because of prohibitive retail prices these people who must economize at every turn pass the apple by and thus lessen the consumption to no small degree. But in spite of this decrease in the use of the apple the consumption of bananas and citrus fruits is largely increased. An economic change of this kind necessarily captures the attention of apple growers and dealers and compels them to seek the reason for the new order.

Men who have made a careful examination of the facts are unanimous in their decision that the ascendancy of the citrus fruits and the banana to a higher commercial level and the declining popularity of the apple are due almost entirely to the advertising that the former kinds have received. A continuous systematic campaign of publicity by the large organizations selling tropical fruits has familiarized every household with the variety of ways in which these products may be used as human food and medicine and this knowledge, together with other advertising influences, has resulted in a very appreciable increase in the use of the tropical fruits and in a detriment to the apple. The difficulty is not with the apple as a fruit, but with the methods of selling it and the program of those seeking to promote its wider use includes a plan for improving distribution. If advertising has been of so great a benefit to the tropical fruit industry as observation and study seem to indicate, then these promoters of larger apple sales appear to be reasoning along logical lines.

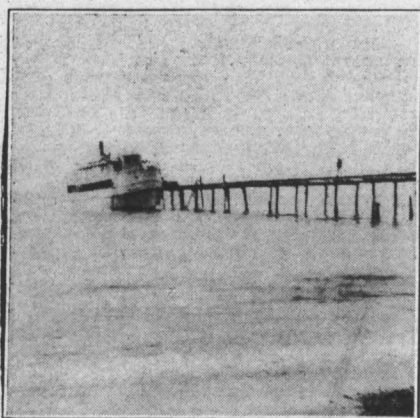
COLD DAMAGES FRUIT.

While the last report of the Secretary of State on Michigan fruit is very promising in that the condition of apples was put at 83 per cent, pears 86 per cent, peaches 82 per cent, plums 84 per cent, cherries 89 per cent, and small fruit 90 per cent, the cold nights since the report was issued have worked havoc not only in Michigan but also in many other important fruit producing states.

In this state the damage was greatest in the central and southern counties, although many sections in the northern districts report injury to fruits, particularly on the lower land. In Berien and Van Buren counties the estimates of loss ranges from 25 to 50 per cent of all the early fruits, and grapes and peaches. Muskegon, Oceana and Mason counties also report serious injury to orchards not located on elevated positions. In the Grand Traverse section but few reports of damage have been made and it is believed that less harm has resulted there than in sections farther to the south. In the southeastern counties the loss will amount to considerable to all fruits except winter apples.

The cold wave was general over the north central and eastern states and untold damage to fruit and vegetable crops in Delaware, Maryland, Virginia and New Jersey has been done. The damage was particularly serious in Delaware and Maryland, where in many places ice formed. The most serious injury was to potatoes and tomatoes. Strawberries, particularly in Delaware, where shipping was just commencing, were seriously injured. Tomato plants, beans, peas and other vegetables also suffered extensively. The damage on the eastern shore of Virginia, from all reports, was not quite so extensive. Potatoes were hurt to some extent. Growers were just setting out their sweet potato plants. Most of these were killed, but it is believed the growers can secure more plants and the freeze will only delay the maturity of the crop a short time. In New York state the damage to fruit does not appear to have been serious. Vegetables were not far enough advanced to be hurt.

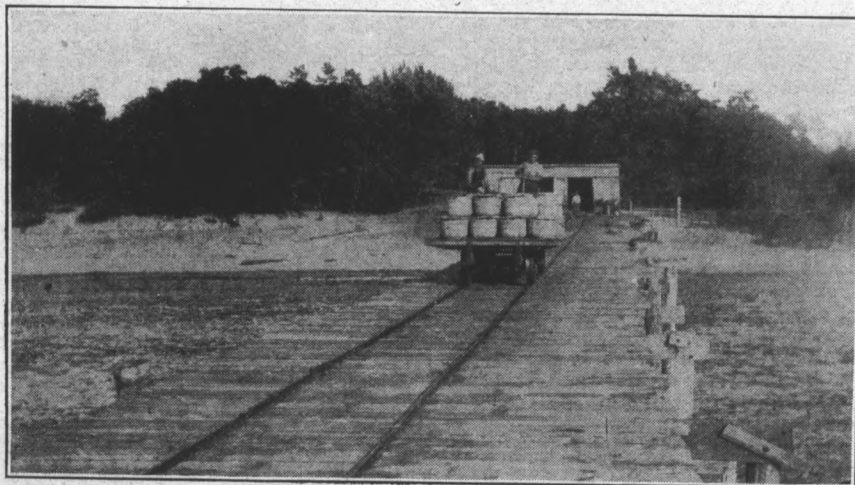
During a recent auction sale of prime horses held in Macon, Mo., 143 head of horses were disposed of in 145 minutes. Buyers were there from Massachusetts, Illinois, Idaho, Georgia, Missouri and other states. The horses were all Missouri bred, and the sale aggregated over \$25,000. Some of the horses sold for \$350 per head, \$250 and \$200. A matched pair brought \$530, another \$450 and another \$385.



Steamer at Pier to be Loaded with Fruit.

of fruit, and by gravity are rolled out to the lake end of the pier where a small steamboat is tied. No fruit is rolled out on the pier until the boat is in sight. While one car is being unloaded at the boat, another is being loaded in the storage house, in which the floor is level with the tops of the cars. The pier is taken out late in the fall and replaced before shipping time of the following year. The fruit, when there is a full boat load, is run across to Chicago. When less than a full load it is given to one of the larger boats at South Haven.

But to go back to the subject mentioned in the first lines. The abundant supply of water pumped up from the old dam and converted into an insect-killing concoction and then sprayed on hundreds of thousands of a great variety of fruit trees in the vicinity, has caused this ship loading contrivance to become one of the most famous fruit shipping points on the Great Lakes. Just a few years ago



Car Loaded with Baskets of Fruit Runs by Gravity from Storage seen in Distance down to end of Dock where Fruit is Loaded on Boat.

Pier Cove shipped from this little storage house and its pier extension, no less than three million fifth-bushel baskets of peaches, not to mention any of the other kinds of fruit that found market from the same place. It is a not uncommon thing for the Pier Cove and Fennville district to ship a quantity of apples that amounts to 1,500 railroad cars. Pier Cove alone shipped 1,000 car loads three years ago. It is estimated that not less than 100,000 barrels of apples will be rolled over Pier Cove pier to shipside during the remain-

sales is in the end the most profitable policy. The achievement of this end will in itself remove a great obstacle to the widespread consumption of apples. It will obviate the necessity of making repeated appeals for funds to advertise the successive crops.

Those who have undertaken this radical step to popularize the "King of Fruits," have felt for some time that the apple is not used to the extent it should be. A short time ago an experiment station man watched purchases of fruit from retail



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PERCHERONS bred for utility as well as show quality. Stable includes several international winners. Young stock for sale. Come, or write B. F. ANDERSON, R. No. 1, Adrain, Michigan.

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DETROIT, MAY 31, 1913.

CURRENT COMMENT.

Commission Merchants' License Law.

Reference has been made in these columns to the Roosevelt bill which was pending before the New York Legislature. A bill somewhat similar in its provisions was introduced in the Michigan House of Representatives by Mr. Follett during the recent legislative session and was passed by both houses. This law, known as House Enrolled Act No. 119, provides for the licensing of commission merchants, including persons, firms, associations and corporations who sell or offer for sale on commission any kind of farm produce. The term "farm produce" is defined in the law as including all agricultural, horticultural, vegetable and fruit products, nuts and honey, but does not include timber products.

The law provides that on and after October 1, 1913, no commission merchant doing business within the state shall receive, sell or offer for sale on commission within the state, any kind of farm produce without a license, as provided in the law. This license to do a commission business is obtained from the State Dairy and Food Commissioner upon making application and payment of a fee of \$15 in cities of less than 20,000 population and \$25 in cities of more than 20,000 population.

The law provides that such licenses shall not be issued upon application, provided a complaint from any consignor of farm produce to the applicant shall have been filed during the preceding year on any of the grounds specified in the law, and established as true upon investigation by the commissioner. Power is given the commissioner and his assistants to investigate all charges of unfair dealings and hold hearings on same. He is fully empowered to refuse to grant or to revoke a license already granted where he is satisfied that:

"(1) False charges have been imposed for handling or services, or charges other than as by a schedule agreed on by the parties, or other than those customary in trade;

"(2) Where there has been a failure to account promptly and properly or to make settlements with intent to defraud;

"(3) Where there have been false statements as to condition, quality or quantity of goods received or held for sale on commission;

"(4) Where there have been false or misleading statements as to market conditions with intent to deceive;

"(5) Where there have been combinations to fix prices below the market level;

"(6) Where there has been a continual course of dealings of such nature as to satisfy the commissioner of the inability of the commission merchant to properly conduct the business, or of an intent to deceive or defraud customers;

"(7) Where the commission merchant

directly or indirectly purchases the goods for his own account without prior authority therefor, or without notifying the consignor thereof."

Provision is made for an appeal at law by commission merchants who are refused licenses or whose licenses are revoked. Shippers of farm produce are privileged to make an appeal to the State Dairy and Food Commissioner in writing within 60 days after making a shipment with the returns of which they are dissatisfied. The commissioner is required by the law to treat such application as a complaint and cause a full investigation of same to be made.

A penalty clause is attached to the law, providing a fine or imprisonment or both upon conviction on any one of the counts above enumerated. Retail dealers, real estate dealers and auctioneers selling farm products on commission are specifically exempted from the terms of the law.

The State Dairy and Food Commissioner is required to publish the names of all commission merchants in pamphlet form as often as he may think necessary. The funds contributed from the license fees are turned into the state treasury for the benefit of the State Dairy and Food Department.

While this law will not be a hardship to reliable commission men, and should bring them increased business, yet it will be the means of protecting innocent shippers from transient or unscrupulous dealers. Shippers, however, should remember that to benefit by this law they must pack their products honestly and be reasonable in their demands.

Operating Capital vs. Farm Profits.

Very often the profits in farming, like those in other business enterprises, are limited by the lack of sufficient operating capital. Definite figures on this point, however, have been lacking until recently, when the Wisconsin Experiment Station conducted an investigation with the idea of showing the relation of operating capital to profits in farming. The statistics gathered represented the results upon many farms and are thought to indicate quite plainly the close relation which exists between operating capital and profits.

It was found in this investigation that when the operating capital, including machinery and live stock, as well as cash, was 13½ per cent of the total the profits were \$167.78 per farm. Where the operating capital was increased to 17.7 per cent of the total, the profits were increased to \$433.68. When the operating capital was increased to 28.2 per cent the profits again rose to \$1,628.55. When the operating capital was 33.3 per cent the profits reached a maximum of \$3,511.33.

Thus the "land poor" farmer, the majority of whose capital is invested in land and buildings, made relatively small profits, but where one-third of the total capital was in the form of operating capital such as live stock, machinery and cash with which to do business, the profits were increased to a maximum degree. This is another argument for the establishment of an adequate form of rural credit which will enable the large class of farmers who are unable to finance their business properly to add to their operating capital and thus increase their profits.

Australian Beef in American Markets.

The importation of a cargo of refrigerated beef from Australia, with the promise of more to follow to be distributed in Pacific coast cities, has been made the subject of widespread comment and speculation in the public press. Various economic reasons are given for this new commercial development, chief among which is that it is directed against the big packers of the country who, it is contended, have been charging exorbitant prices for their products when distributed at Pacific coast points.

The predictions with regard to the development of this importing business are rather extravagant, the claim being made that capital has already been subscribed for the purchase of large areas of northern Australia land and the development of the cattle business there on a scale even greater than the operations of our one time western cattle kings, while news is also current regarding the building of a number of new refrigerator steamships for this trade.

Possibly the anticipation of free meat under the new tariff law may have something to do with this new commercial movement. It is doubtful, however, if

Australian meat can be brought into the American market in quantities to have any very material effect on the production of Central United States. Up until the present time the United States has contributed largely to the world's supply of meats, but in recent years the production has fallen off to such an extent that at the present time prices are advancing until they more nearly approach the world's price level for meats that has ever been the case in this country since the great development of our agriculture.

With the falling off of a large surplus in exports from this country the European meat supply has been largely contributed to by the frozen products from Argentine and Australia. Even though the industry might be increased in these countries it is quite certain that the choicer products will not be sold in the United States at a price below the world's price level, and while meat from these sources might compete in seaboard towns with our own product, the added charges would practically prohibit its distribution in the great inland centers of consumption. While this development of modern commerce may well be watched with interest, we do not believe there is occasion for live stock producers in this section of the United States to view it with alarm.

A Livingston county Permanent Road reader sends us the Materials. criticism of a contemporary regarding the concrete and stone roads of Wayne county and asks for our views on these two types of roads, and gravel roads in Wayne county and elsewhere.

The crushed stone or macadam roads do not wear well under heavy traffic conditions in any place where automobiles form a considerable percentage of the vehicles traveling upon them. The loaded vehicles grind up the surface to some extent and the rapidly moving automobiles sweep the dust from the road, which blows away in fine particles, soon leaving a rough and rutty surface which is expensive to repair and again unsatisfactory in wear after repairs have been made.

The concrete roads do, however, give a very satisfactory amount of wear, roads that have been down two or three or more years still being in excellent condition where very little has been expended in keeping them in repair. The first of the concrete roads laid in Wayne county are not as good as those laid after the policy was adopted of reinforcing the blocks at the edges where they join with steel reinforcement, which prevents a chipping of the edges which produces a rough traffic surface.

In a county containing a large city which pays a large percentage of the cost and where traffic conditions caused by the drawing of produce into the city are heavy throughout the year, a concrete road would seem to be well adapted and perhaps as economic as any yet devised. But for the roads in the interior of the state and, in fact, in all except those which are adjacent to large cities where traffic conditions are unusually severe, gravel is undoubtedly the best material to use. A gravel road well laid and given good care is the best possible kind of road for all but a few weeks or months during the year, and then it is not bad, nor is the upkeep expensive if the road is not neglected from the start.

GOOD SEEDS.

It is always economy to plant the best seeds obtainable. Seeds of strong vitality and purity make better crops. Farmers should test the seeds they plant and find out for themselves if they are good. Those who have not the time or opportunity of testing their seeds should put their trust in those who do test them. We are most heartily in favor of the campaign of education now going on as to how to make two blades of grass grow where one grew before. You can make your poor land good, and your good land better by growing crops that improved and enrich the soil. Ask for information about Alfalfa, Sand or Winter Vetch, Cowpeas and Soy Beans. Samples and prices as well as reliable information mailed free upon request. Address, Alfred J. Brown Seed Co., Grand Rapids, Mich.—Adv.

HEARINGS ON NET WEIGHT LAW.

The net weight law, signed March 3, 1913, and to go into effect 18 months from that date, requires that the quantity of the contents of food packages be plainly marked on the outside of each

package in terms of weight, measure or numerical count. The committee appointed by the secretaries of the Department of Commerce, the Department of the Treasury and the Department of Agriculture to draw up regulations for the enforcement of this law announces that it is now ready to receive recommendations and suggestions in writing. The first hearings for manufacturers, dealers and others interested will be held in New York during the week of June 9, and other hearings will be held whenever and wherever there is sufficient demand. Communications for this committee should be addressed to the Net Weight Law Committee, Department of Agriculture, Bureau of Chemistry, Washington, D. C.

HAPPENINGS OF THE WEEK.

National.

Early this week the United States Supreme Court settled questions of particular interest to Michigan people. The Chandler-Dunbar water power condemnation case at the Soo was reversed and the \$550,000 allowed the company for riparian rights by the lower court was held an error since public right in the waters of St. Mary's river is superior to water rights of the company. A second case involved the question of the Detroit United Railway being a trespasser on streets where the company's franchise had expired, the court holding that the company was committing a tort in refusing to vacate, and that the city can compel the company to discontinue service and remove their tracks. A third case of importance settled the point that the holder of a patented article cannot dictate what a retailer must sell it for. The court differentiated between this case and the "mimeograph case," where it was held that an inventor could dictate as to how his invention should be used.

The jury reform bill fathered by President Wilson, passed the New Jersey Senate, Monday, and Gov. Fielder promises that he will sign it immediately.

The schools of Philadelphia will experiment with the plan of introducing the study of German in the elementary grades, and if the trial proves successful the curriculum will be changed to include the early study of this language by all elementary students.

The circuit court of Marquette county, Mich., is attracting national attention just now through the trial of Geo. A. Newett, a local newspaper man, for slander, the charge being preferred by Colonel Roosevelt, following the publication in Newett's paper of a statement that Mr. Roosevelt "gets drunk." The statement appeared during the presidential campaign last fall just after Mr. Roosevelt had spoken at Marquette. A jury was completed Monday night and witnesses were to be called Tuesday. The trial will be semi-political in nature, due to the fact that Mr. Newett was defending Congressman Young, of that district, who was candidate for re-election, against the attacks of Mr. Roosevelt, when the statement was published.

While celebrating Queen Victoria's birthday at Long Beach, Cal., last Saturday, 35 persons lost their lives as the result of a pier giving way. The structure was packed with people out enjoying the exercises. Damage suits aggregating \$1,000,000 will probably be brought against the city. A grand jury is now making an investigation of the wrecked pier.

The rapidly increasing traffic on the electric lines of southern Michigan has necessitated the substitution of trolley trains for single cars, which will be made about the first of July.

Mining corporations at Bessemer, Mich., have made protests against the increased assessments by the board of review of mining properties and the matter will probably go before the courts before it is settled.

The Grand Masonic lodge of Michigan opened a two-day session at Lansing on Tuesday.

Believing that affairs of the department of public works have not been conducted along economical lines, Lansing aldermen are demanding a grand jury to investigate the department.

At the annual meeting of the stockholders of the Michigan Sugar Company, at Saginaw, Monday, it was announced that the factories would do business this summer regardless of the disposition of the sugar schedule by Congress. Electric linemen of Saginaw have gone out on strike.

It is reported that the farmers' co-operative elevator at Shepherd, Mich., has failed through poor management.

Foreign.

The Emperor of Japan is rapidly improving from his recent illness and it is stated that he will, in all probability, completely recover.

Shipping is completely paralyzed in the Gulf of Smyrna by the presence of mines in the harbor. The steamer Nevada sank as the result of running on one of the mines and 40 persons are reported to have been drowned.

Now that the war between the Allies and the Turks has been substantially settled, the former are not agreeing over the division of the spoils and engagements have taken place between the Bulgarian and Greek troops in the vicinity of Saloniki. Losses are reported heavy, with the Bulgarians victorious. The arrival of King Constantine on the scene had a moral effect upon the contending troops and the fighting has now ceased. Luther McCarty, holder of the white championship as heavyweight pugilist of the world, was killed in the first round in a bout with Arthur Pelkey, at Calgary, Alberta.

Veterinary.

CONDUCTED BY W. C. FAIR, V. S.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to someone else. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany the letter.

Abscess.—I have a four-year-old mare that is troubled with small boils on her shoulder and back. I feed her corn, oats and mixed hay. G. A. L., Shelbyville, Mich.—Give your mare a dessertspoonful of Donovan's solution at a dose three times a day. Also apply the following lotion three times a day: Dissolve 1/4 lb. acetate of lead, 3 ozs. sulphate of zinc and 3 ozs. of tannic acid in a gallon of clean boiled water. It is needless for me to say that the collar and saddle pad should be kept clean, and wet every evening with one part bichloride mercury and 100 parts water.

Chronic Cough—Surfeit—Stocking.—I bought a small road horse last fall that had a cough and he is not rid of it yet. I gave him ginger, but it failed to relieve him. This same horse has a sort of rash or pimples on back that do not break open, but scale; besides, when allowed to stand in barn over night his ankles swell. I forgot to say that lower part of hind legs ooze a yellow watery fluid. D. D., New Baltimore, Mich.—Give him 1/2 oz. ground licorice, 1/2 dr. of powdered opium and 1 dr. muriate ammonia at a dose in damp feed three times a day. Also give him a dessertspoonful of Fowler's solution at a dose three times a day. Dissolve 1/4 lb. borax in a half gallon of water and wet sore parts of body twice a day. Dissolve 1 oz. acetate of lead and 1/2 dr. sulphate of zinc in a pint of water and apply to sore heels two or three times a day.

Impure Blood—Blotches on Skin.—When I was breaking my three-year-old filly she broke out in blotches which pretty much covered the whole body and I would like to know what to do for her. These blotches appear to leave her in the fall, to return again in the spring. C. B., Jones, Mich.—Give her 1 dr. potassium iodide, 1/2 oz. fluid extract sarsaparilla and a teaspoonful powdered nitrate of potash at a dose in feed twice a day. Apply one part oxide of zinc and five parts vaseline to blotches two or three times a week.

Splint.—I have a yearling colt that has a splint on each fore leg situated on the inside of leg below knee. These bunnies are quite large and I am anxious to have them reduced. E. E. G., Gem, Texas.—You will obtain fairly good results by applying one part iodine and ten parts fresh lard to splint twice a week. Kindly understand, a bony bunch of this kind is not easily reduced.

Chronic Cough—Heaves.—For the past 12 months my seven-year-old horse has been troubled with cough, caused, I believe, by eating poorly cured clover. I have been smoking him with camphor gum and tar, but it does not relieve him much. He breathes much the same as a horse with heaves. I have tried all the remedies I can think of, but none of them relieve him. J. H. V. A., Marion, Mich.—Feed no clover or musty badly cured fodder, but feed him mostly grain and grass; also give him a dessertspoonful of Fowler's solution, a teaspoonful fluid extract lobelia, a teaspoonful tincture nux vomica and a tablespoonful fluid extract gentian at a dose in feed three times a day.

Obstructed Teat.—I have a heifer that came fresh two weeks ago; one of her teats has had to be opened every time I milk her and I would like to know if I can do better by using milking tube. There does not appear to be a very good natural opening in teat. R. K., Capac, Mich.—I know of no better treatment than to dilate teat opening with a silver or steel probe; or a milking tube large enough to dilate teat opening. Kindly understand, instruments that are used for this work should be thoroughly cleaned and dipped in a solution of carbolic acid, not weaker than three per cent.

Inflamed Glands.—We have a yearling Holstein heifer that has three bunches, one behind each eye and under ear and I am inclined to believe the throat glands are swollen. This heifer has lost flesh rapidly, has a good appetite and has no bowel trouble. J. F. B., Ovid, Mich.—Apply one part iodine and ten parts fresh lard to enlarged glands once a day. Give 2 drs. potassium iodide and 1 oz. of fluid extract gentian at a dose two or three times a day.

Mammitis.—I have a heifer that came fresh the second day of May, this was her first calf; since then her udder has been caked badly part of time. The teats seem to be clear, but the udder is quite hard. S. A. F., Okemos, Mich.—You had better feed her less grain, keep her bowels open and active by allowing her to eat grass. Give her a tablespoonful powdered nitrate of potash at a dose in feed three times a day and apply one part iodine and 15 parts fresh lard to udder every day or two.

Scours in Calves.—I am having trouble with my calves which appear to have scours; most of them are a few months old and scour until they become very weak and exhausted. I am feeding separator milk, silage, whole oats and salt and water. D. P. R., Kalkaska, Mich.—It is needless for me to say that scours

is usually the result of keeping animals in filthy places, or allowing them to eat or drink food or water that is infected. The feeding utensils should be clean. Give each calf that is four or five weeks old 20 grs. of salol at a dose three times a day, and before commencing this treatment give 2 ozs. of castor oil. Without being able to remove the cause of their bowel trouble, you will not succeed in effecting a cure.

Obstructed Teats.—I have a Holstein heifer which freshened in the winter that is exceedingly hard to milk and at present there appear to be hard cords in teats. Part of time clots of blood have passed when milking her. She seems to be all right other ways. H. G. B., Hartford, Mich.—In order to relieve this stricture condition of teat canal, it will be necessary to use force to expand this canal and it is best done with a teat expander which operates similar to a glove stretcher, or use a steel sound, or you may use a milking tube that has been saturated in extract of belladonna. A concealed bystoury cutting and making canal a little larger is considered good practice. A hard milker is usually always rather hard to milk.

Infected Udder.—I have a Holstein cow nine or ten years old that dropped her last calf April, 1911, and has given milk until about six weeks ago. Her milk got bad, somewhat resembled pus and I dried her. She is on grass now and is not much better, but as she is due to come fresh, next August, I would like to know if you believe her milk at that time will be normal or not. R. S. B., Berville, Mich.—It is very doubtful if she will give normal milk for any great length of time; however, if you intend to keep her rub her bag with iodine ointment two or three times a week.

Prolapsus, or Eversion of Oviduct.—I am having trouble with my poultry; found a hen straining and hind parts hanging out; they seemed to have turned inside out. I placed her in a coop by herself and she recovered. I applied a healing powder to raw parts which were covered with red blotches. There are several others of my flock affected, besides their bowels are too loose. However, their combs are red and the hens are laying well. What is the cause of this trouble and what can I do for them? Mrs. J. K. A., West Branch, Mich.—Your hens are suffering from prolapsus of the oviduct, an ailment which frequently affects old hens which have been great layers. Over-feeding on too stimulating food, constipation and straining to expel large eggs are common and direct causes. I have known it to occur as a result of inflammation of the oviduct or it may result from any other condition which might prevent the passage of the egg. Prolapsus often occurs from efforts to expel an egg. As soon as symptoms of prolapsus are seen, catch the bird and notice if the egg has been stopped in the passage; if so, remove the egg, which is most easily done by crushing it. Give 3 drops fluid extract ergot at a dose three times a day, and wash out oviduct with a solution made by dissolving 2 grs. permanganate potash in a pint of clean boiled water. The protruding part should be kept clean and this is best done by keeping the bird in a clean cage, which has been thoroughly disinfected. The sore parts should be treated three times a day.

Distemper—Asthma—Weak Heart.—I have a five-year-old horse that had distemper 12 months ago and never fully recovered. When drinking water a portion returns through head and out of nostrils. His appetite is good, but he is short of wind, and at times I suspect heaves. When he is working he breathes fast and pants. H. C. M., Burt, Mich.—Feed no clover or musty, dusty hay, and only a small quantity of bulky fodder. Give him a dessertspoonful of Fowler's solution, 1 dr. fluid extract nux vomica and 1 dr. fluid extract lobelia at a dose in-feed three times a day. Kindly understand, he should not be over exerted, but fed a good quality of food, and never allowed to stuff himself with too much water or food. Exercise him daily.

Bowels Move too Often.—I have been watching your veterinary column a long time to find a remedy for my horse. When driven on road his bowels move too often, but are never very loose. On account of this trouble he gaunts and looks rather empty. He is only six years old and is fed six quarts of oats or ground feed three times a day and also has plenty of good hay. J. H. D., Sunfield, Mich.—I know of no drug that will help your horse, which will not prove injurious. It is a nervousness and the bowels are stimulated into action by exercise. The slower you drive, the less frequent his bowels will act.

Swollen Lip.—I have a 16-year-old horse that had a swollen lip some five weeks ago which seems to hurt when he drinks cold water. J. H., Redford, Mich.—Dissolve 1/2 oz. potassium iodide in one pint of extract of witch hazel and apply to lip once or twice a day. Give him 1 dr. of ground nux vomica at a dose in feed three times a day.

Heaves.—I have a horse that has had heaves for a short time, besides coughs and discharges mucus from both nostrils. Have been giving him ginger and pine tar, but this fails to relieve him. H. F., Grand Rapids, Mich.—Give your horse 1/2 oz. Fowler's solution, 1 dr. fluid extract lobelia and 2 drs. muriate ammonia at a dose in soft feed three times a day. He should be fed very little bulky food, no clover or musty dry fodder.

Eversion of Vagina.—When my brood mare is down something protrudes from vagina and she also has a discharge that leads me to believe she has leucorrhea. W. B., Bayshire, Mich.—It is possible that she has a vaginal polypus that could be easily removed, or a fold of vagina may evert. Dissolve 1 oz. acetate of lead in 1 gal. of tepid water and apply to vagina twice a day.

WANT TO BUY Registered Holstein heifer calves of good breeding. W. H. H. WERTZ, Wooster, Ohio.

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10 Reg. Guernsey Bulls, ready for service. Large Yorkshire hogs, the best yet. Come or write. JOHN EBELS, R. 10, Holland, Mich.

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Born June 5, 1912, sire a son of the King of the Pontiacs from a daughter of Hengerveld De Kol. Dam of calf, an A. R. O. daughter of Sadie Vale Concordia's Paul De Kol, her dam a 20 lb. imported cow. ED. S. LEWIS, Marshall, Mich.

HOLSTEIN BULLS—well bred, at reasonable prices. Barred Rock Chickens from 15 years breeding. Good layers eggs 15 for \$1. W. B. Jones, Oak Grove, Mich.

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Offers the following young **Holstein Friesian Bull** Prince Sarcastic—Fine in form and breeding. Beautifully marked. Sure to please you. REED & KNOWLES, Howell, Mich.

THIS HOLSTEIN BULL

was bred by best son of PONTIAC BUTTERBOY. Dam has official record of 24 lbs. and 1/2 old, 30 lbs. milk a day. Price \$100. C. D. WOODBURY, Lansing, Mich.

HATCH HERD HOLSTEINS—Choice sires from ARO dams. Reasonable prices. HATCH HERD, Ypsilanti, Michigan.

Registered Holstein Heifer—15 months old. Extra good markings, nice individual. A bargain at \$150 delivered at your express office. Hobart W. Fay, Mason, Mich.

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excels in beauty of dairy type. She is a persistent milker. Jerseys are easily adapted. They live long and keep healthy. They mean steady butter profits. Write now for Jersey facts. Free for the asking. AMERICAN JERSEY CATTLE CLUB 324 W. 23d St., New York

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FOR SALE—JERSEY BULL CALF, ready for light service, from high class ancestry. WATERMAN & WATERMAN, Meadowland Farm, R. F. D. 6, Ann Arbor, Mich.

Jersey Cows and Heifers

To reduce the herd we will sell 25 head of females at attractive prices. Black Meadow Farm, Royal Oak, Mich.

Jerseys—Bulls ready for service, bred for production. Also cows and heifers. Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

DAIRY BRED SHORTHORNS—Bates bred bull 7-mo. old for sale. Price \$100. J. B. HUMMEL, Mason, Michigan.

For Sale—The Shorthorn Bull Highland Duke 18th, 362238—Roan—Calved Nov. 24th, 1910. WM. C. SMITH, Rochester, Mich.

Dairy Shorthorns—Large Cattle—Heavy Milkers. Milk Records of all cows kept. No stock for sale at present. W. W. KNAPP, R. No. 4, Watervliet, Mich.

Scotch Shorthorn Bulls and Heifers For Sale. W. W. KNAPP, Howell, Michigan.

SHEEP.

IT PAYS TO BUY thoroughbred sheep of PARSONS, "The Sheep Man of the East," R. 1, Grand Lodge, Mich. (Write for descriptive price list.) I pay express charges. Oxfords, Shropshires, Rambouillet, Polled Delaine.

Reg. Rambouillet Sheep, Pure Bred Poland China HOGS and PERCHERON HORSES. 24 miles E. Morrice, on G. T. R. R. and M. U. R. J. Q. A. COOK.

Shropshires for Sale A choice registered flock of forty head. Address LONG BEACH FARM, Augusta, Mich.

SHROPSHIRE & DUROCS KOPE-KON FARM, Kinderhook, Michigan.

HOGS.

Durocs & Victorias—A Desirable Bunch of Sows of Either Breed due April and May. M. T. Story, R. R. 48 Lowell, Mich. City Phone 55.

BERKSHIRES—Male and female from one to 24 mos. Registered or eligible, served and ready for service. Some fine well bred young boars ready for service. F. D. & H. F. HOVEY, Imlay City, Michigan.

BERKSHIRES Choice spring boars and gilts, priced to move quick. Farmers stock. ELMHURST STOCK FARM, Almont, Mich.

Quick Maturing Berkshires—Best breeding; best type. Satisfaction guaranteed or money refunded. C. S. BARTLETT, Pontiac, Mich.

O. I. C.—Big growthy type, last fall gilts and this spring farrow to offer. Very good stock. Scott No. 1 head of herd. Farm 1/2 mile west of depot. OTTO B. SCHULZE, Nashville, Mich.

O. I. C's—A FEW BRED SOWS FOR SEPTEMBER FARROW. GEO. P. ANDREWS, Dansville, Ingham Co., Mich.

O. I. C. SWINE Write me for price on Spring Pigs, pairs and trios, not akin. Have a number of service males of good type. Write me describing of your wants. A. J. GORDEN, R. No. 2 Dor, Mich.

THIS

O. I. C.

SOW WEIGHED 932 LBS. AT 23 MONTHS OLD

IONIA GIRL

I have started more breeders on the road to success than any man living. I have the largest and finest herd in the U. S. Every one an early developer, ready for the market at six months old. I want to place one hog in each community to advertise my herd. Write for my plan. "How to Make Money from Hogs." G. S. BENJAMIN, R. No. 10 Portland, Mich.

O. I. C's—all sold. Orders booked for April and May pigs of the choicest breeding. C. J. THOMPSON, Rockford, Michigan

O. I. C's—Bred sows, March pigs pairs and trios. Bull Rock Eggs \$150 per 15. FRED NICKEL R. 1, Monroe, Michigan.

O. I. C's—All ages, growthy and large. Males on young stock. 100 to select from. Attractive prices on young stock. H. H. JUMP, Munith, Mich.

O. I. C.—March pigs ready to ship, the long growthy kind with plenty of bone at farmers prices. A. NEWMAN, R. 1, Mariette, Mich.

DUROC-JERSEYS—Fall and Spring boars from prize-winning strains. Sows all ages. SPECIAL BARGAIN in summer pigs. Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

DUROC JERSEYS—Fall Gilts bred or open. Spring pigs pairs not akin. F. J. DRODT, R. No. 1, Monroe, Michigan.

MALES ALL SOLD BUT ONE—Fancy fall gilts for sale. JOHN MCNICOLL, Station A, Bay City, Mich. Route 4, Box 51.

DUROC JERSEYS—BRED GILTS FOR SALE. CAREY U. EDMONDS, Hastings, Michigan.

POLAND CHINAS—Both Western and Home Bred. Either sex at all ages. Prices right. W. J. HAGELSHAW, Augusta, Mich.

Butler's Big Bone Poland Chinas

We have a few nice fall boars, also some big sows bred for fall farrow. Our hogs are all cholera proof. J. C. BUTLER, Portland, Michigan.

Big Type Poland China Pigs at close prices. Eggs from big business B.P. Rocks, \$1 per 15. ROBERT NEVE, Pierson, Mich.

Large Type P. C. all sold, have some good Sept. and Oct. pigs that have size, bone and quality. Write your wants or come and see. Expenses paid if not as represented. Free delivery. W. E. Livingston, Parma, Mich.

POLAND CHINAS—Either sex, all ages. Something good at a low price. P. D. LONG, R. No. 8, Grand Rapids, Michigan.

P. C. BOARS AND SOWS—large type, sired by Expansion. A. A. WOOD & SON, Salline, Michigan.

LARGE Yorkshires—Choice breeding stock, all ages, not akin, from State Fair prize winners. Pedigrees furnished. W. C. COOK, R. 42 Box 22, Ada, Mich.

Lillie Farmstead YORKSHIRES

Spring bred gilts all sold. Gilts bred for next August farrow. September pigs either sex, pairs and trios not akin. Orders booked for spring pigs. COLON C. LILLIE, Coopersville, Mich.

Mention the Michigan Farmer when writing to advertisers.

Markets.

GRAINS AND SEEDS.

May 28, 1913.

Wheat.—The past week has been favorable to the bull side of the market and prices show a general advance in both cash and future sales. The reason for the upward trend is practically a reverse of the conditions supporting the market during the past weeks when the strong European demand was given the credit. At recent sessions of the market a number of reports have come in of the damage to the American crop. Chinch bugs and grasshoppers are decreasing the outlook in some sections; in Missouri the Hessian fly is working injury to the plant; Kansas reports lower prospects, while Minnesota and North Dakota are suffering for moisture. On the other hand, crop conditions in Europe show some improvement which has eased slightly on the demand from that quarter. But altogether, conditions have favored the selling side of the trade. The world's visible supply is calculated at 20,000,000 bushels less than a year ago. The local prices for No. 2 red wheat at this date for 1912 was \$1.16 per bu. Quotations for the past week are as follows:

	No. 2	No. 1	Red.	White.	July.	Sept.
Thursday	1.08½	1.07½	91½	91½		
Friday	1.09½	1.08½	91½	91½		
Saturday	1.10	1.09	92½	92½		
Monday	1.10	1.09	92½	92½		
Tuesday	1.10½	1.09½	93¼	93¼		
Wednesday	1.09½	1.08½	92½	92½		

Chicago, (May 27).—No. 2 red, \$1.08; 1.09½; July, 91½c; Sept., 91c; Dec., 92½c per bu.

New York, (May 27).—May, \$1.01½; July, 99½c; Sept., 98½c per bu.

Corn.—The drift of this market continues to benefit sellers since prices are gradually advancing to a higher level. While the new crop is practically all in, the weather has been rather unfavorable for the grain's getting a good start, a matter which will probably have an influence upon the resulting crop. Prices at Detroit and Chicago show a general advance for the week of about 2c per bu. The advance may have been greater were it not expected that offerings would increase now that farmers are a little more free to make deliveries. The local market continues quiet with the demand fair. One year ago No. 3 corn was quoted here at 79c per bu. Quotations for the past week are:

	No. 3	No. 3
	Corn.	Yellow.
Thursday	57½	59½
Friday	59	61
Saturday	59	61
Monday	59½	62
Tuesday	59½	62
Wednesday	59½	62

Chicago, (May 27).—No. 2 corn, 59¢; 60¼c; No. 2 white, 60¼c; 60¾c; July, 57¾c; Sept., 58¼c; Dec., 56¼c per bu.

Oats.—This cereal is advancing well abreast of the other two major grains, with prices showing 1½c rise over the close a week ago. While the influence of other grains was a factor in the advance, the present heavy demand for oats and the rather small stocks, together with the unfavorable weather conditions existing over a large portion of the heavy oat producing territory were prominent in changing the values. One year ago the local prices for standard oats was 58½c per bu. Quotations for the past week are:

	Standard.	No. 3
		White.
Thursday	41½	40½
Friday	42½	41½
Saturday	42½	41½
Monday	42½	41½
Tuesday	43	42
Wednesday	42½	41½

Chicago, (May 27).—No. 2 white, 41½c; 41¾c; standard, 41¼c; 41¾c; July, 38c; Sept., 37¾c; Dec., 38¼c per bu.

Beans.—This market is doing absolutely nothing in the bean deal. The quotations published by the local board of trade are comparatively lower than quotations from other points and holders of beans are not shipping here. The nominal quotations continue at \$2.05 per bu. for prompt and June shipment at country points. Michigan Farmer crop reporters state that they are receiving better prices out in the state than are offered at Detroit.

Chicago, (May 27).—Prices here have held steady at the advanced figures given a week ago. Beans are handled almost entirely by dealers and not on a commission basis. There is a fair demand and while the supply is ample it is not so large as to cause much bearish pressure at the present range of values. Pea beans, hand-picked, fancy, are quoted at \$2.42½ to \$2.45; choice, \$2.40; prime, \$2.30; red kidneys, \$2; white kidneys, \$2.50 per bu.

Clover Seed.—The Detroit market is doing nothing. At Toledo cash seed is quoted at \$13; October, \$7.82½; and December \$7.80, all being below quotations published last week.

Timothy Seed.—At Toledo this product is quoted at \$1.97½ for prime, cash and May, and \$2.12½ for September. These prices are below quotations of last week.

Rye.—The call for rye has decreased during the past few days with local quotations unchanged from one week ago, cash No. 2 being quoted at 63½c per bu. At Chicago the same grade is quoted at a 1c advance over last week, or at 64c per bu.

Barley.—This grain shows a narrowing of quotations, the higher figures remain-

ing the same, while the lower limit is advanced. At Chicago the range is from 50¢ to 68c per bu., while at Milwaukee it is from 58¢ to 68c per bu.

FLOUR AND FEEDS.

Flour.—Jobbing lots in ½ paper sacks are selling on the Detroit market per 196 lbs. as follows: Best patent, \$5.70; second, \$5.20; straight, \$5; spring patent, \$5.10; rye flour, \$4.60 per bbl.

Feed.—Detroit jobbing prices in 100-lb. sacks are as follows: Bran, \$21; coarse middlings, \$21; fine middlings, \$27; cracked corn, \$25; coarse corn meal, \$22.50; corn and oat chop, \$21 per ton.

Hay.—Although the outlook for hay over Michigan varies greatly in different localities, the market here rules about steady, and not very active. Carlots on track at Detroit are: No. 1 timothy, \$14.50@15; No. 2, \$12@13; light mixed, \$13.50@14; No. 1 mixed, \$12@13 per ton.

Chicago.—There is a better demand for hay at last week's advanced figures and the market is firm. Choice timothy, \$18@18.50 per ton; No. 1, \$15.50@16.50; No. 2, \$13@14.

Straw.—Steady. Carlot prices on wheat and oat straw on Detroit market are \$8.50 per ton, rye straw, \$9@10 per ton.

Chicago.—Steady. Rye straw, \$9@10; oat, \$7@7.50; wheat, \$6.50@7 per ton.

DAIRY AND POULTRY PRODUCTS.

Butter.—A general decline in butter values occurred late last week and the present week opened with a 1@2c drop at Elgin. Increasing supplies and too large a proportion of "off quality" stock among the offerings are declared responsible for the rather unexpectedly sharp decline. Locally creameries are 1½c lower, with other kinds unaffected. Detroit jobbing prices rule as follows. Fancy creamery, 27c; firsts, 25½c; dairy, 22c; packing stock, 20c per lb.

Elgin.—Market steady at 26@27c. Chicago.—Demand here is principally for the superior grades, which are in light supply and are kept well cleaned up. Much of this stock is going into storage despite the fact that many buyers maintain that values are still too high. All kinds and grades are lower than last week. Quotations are: Extra creamery, 27c; extra firsts, 26c; firsts, 25c; seconds, 24½c; dairy extras, 25½c; firsts, 24c; seconds, 23c; packing stock, 12@21½c as to quality.

New York.—Prices here have suffered a decline corresponding to that occurring in other markets, but the market is reported firm at the lower range. Quotations: Creamery extras, 27½c; firsts, 26½c; 27¼c; seconds, 25½c; state dairy, finest, 27c; good to prime, 25½c; 26½c; common to fair, 24@25c; packing, 20@22c as to quality.

Eggs.—Good eggs continue in excellent demand everywhere, with values very steady at all points. In the local market values show another fractional advance, current offerings, candled, being quoted at 20c per dozen.

Chicago.—Nothing new in this market. Receipts continue heavy but everything of desirable quality sells readily at former values, the supply of such stock not being above the demand. Miscellaneous receipts, cases included, are quoted at 16½@18½c; do., cases returned, 16@18c; ordinary firsts, 16½@17½c; firsts, 18½@18¾c; storage packed, firsts, 18½@19¼c per dozen.

New York.—Steady and practically unchanged. Fresh gathered extras, 22½@23c; fresh gathered storage packed, firsts 20½@22c; western gathered, whites, 20@23c per dozen.

Poultry.—Quietness rules in the poultry markets just at present. Locally values are lower this week on every kind and grade with the exception of broilers. Quotations are: Live.—Broilers, 30@32c; hens, 16½@17c; No. 2 hens, 12@13c; old roosters, 11@12c; turkeys, 17@18c; geese, 12@13c; ducks, 17@18c per lb.

Chicago.—Under moderate offerings and little activity on the part of buyers this market holds quiet and unchanged. Quotations on live are: Turkeys, good weight, 15c; others, 10c; fowls, good, 15½c; spring chickens, 30@32c; ducks, 14c; geese, full feathered, 9c; do., plucked, 7@8c per lb; guinea hens, \$4 per doz. Cheese.—Brick cheese fractionally higher. No other changes. Wholesale lots, Michigan flats, new, 13½@14c; old, 16½@17c; New York flats, new, 14½@15c; old, 17@17½c; brick cream, 14@14½c; limburger, 18@19c.

Veal.—Steady; trading not active. Fancy, 12@13c; common, 10@11c.

Chicago.—Firm and ½@1c higher under light offerings. Fair to choice, 80@110-lbs., 12½@13½c; extra fancy stock, 14c; fair to good chunky, 12@12½c.

FRUITS AND VEGETABLES.

Apples.—This fruit is firm with prices higher. Movement is greatly improved. Detroit quotations are: Fancy, \$4@5; ordinary \$3@4 per bbl.

Chicago.—The best grades of apples are firm at much higher values. Standard winter varieties, \$3.50@6 per bbl.

Potatoes.—The past two weeks have been important ones in the potato deal, the trade having jumped from an inactive sluggish condition to where the pressure from buyers is high and they are anxious for supplies. At New York prices have advanced rapidly and the demand is keen from all the large cities of the New England states, with stocks in Maine and New York farmers' hands limited. At Pittsburgh supplies cannot be secured to supply the demand. The same is true at Philadelphia and Baltimore. At Cincinnati old potatoes are going around 75c per bu. The cutting off by frosts of new potatoes from the south and early selling of old potatoes by growers seems to be responsible for the sudden advance. Local

prices are up 20c. Michigan stock in car lots, 65@70c per bu.

Chicago.—Decided firmness pervades this market again, due to small supply of new stock. The advance is calling out heavier shipments of old potatoes from farmers. Quotations range from 60@70c per bu.

WOOL.

Boston.—The conservative policy of the manufacturers has not been altered and they are continuing to buy as little new wool as they can and still fill their orders. In the fleece states dealers are offering around 17@18c for medium grades but farmers are rather slow selling at these figures, largely because representatives of some of the mills offered a better figure than this earlier in the season. At no point in the country has any large movement of wool toward market centers taken place, farmers refusing the contract at the price offered. Reports are so conflicting and the amount of business so small that it is impossible to say just what the level of values is.

GRAND RAPIDS.

The city market was quiet Tuesday morning, with only 150 rigs of sellers in sight. Potatoes have made sensational advances during the past week and are selling here at 70@80c, though the market seemed weaker Tuesday. Asparagus continues at \$1; spinach 50c. Hay is a trifle lower, selling at \$11@13. Eggs are higher, jobbers paying 18c, while dairy butter is off a little, dealers paying 30@31c. The mills are quoting grain prices as follows: Wheat, \$1.05; rye, 45c; corn, 62c; oats, 42c; beans, \$1.50; red kidney beans \$1.60@1.75. Dressed hogs are worth 10½@11c.

THE LIVE STOCK MARKETS.

Buffalo.

May 26, 1913.

(Special Report of Dunning & Stevens, New York Central Stock Yards, East Buffalo, New York).

Receipts of stock here today as follows: Cattle, 120 cars; hogs, 100 double decks; sheep and lambs, 70 double decks; calves 1800 head.

With 120 cars of cattle on our market here today, all cattle weighing 1200 lbs. and upwards sold 10@15c per cwt. lower than last week; cattle weighing below 1200 of all grades sold full strong and in many instances higher than last week. At the close of the market, everything was well cleaned up and we look for a steady market at the prevailing prices.

We quote: Best 1350 to 1500-lb. steers, \$8.40@8.50; best 1200 to 1300-lb. do., \$8@8.25; good to prime 1100 to 1200-lb. do., \$7.75@8; coarse plainish 1100 to 1200-lb. do., \$7.50@7.80, medium butcher steers, 1000 to 1100, \$7.75@8.10; butcher steers, 950 to 1000, \$7.50@7.80; light butcher steers and heifers, \$7.25@7.50; best fat cows, \$6.75@7.25; butcher cows, \$6@6.25; light butcher cows, \$4.50@5; trimmers, \$3.75@4; best fat heifers, \$7.50@8; medium butcher heifers, \$7@7.50; light do., \$6.50@7; stock heifers, \$5.50@6; best feeding steers, dehorned, \$7.50@7.75; light common stockers, \$6@6.25; prime export bulls, \$7.50@7.75; best butcher bulls, \$7.25@7.50; bologna bulls, \$6.75@7; stock bulls, \$5.50@6; best milkers and springers, \$7.50@100; common kind do., \$4@6.

We had an active trade here today on hogs with 100 double decks. Light receipts at western points strengthened the trade here, and stiffened our market up 5@10c over Saturday's best time. All good grades selling at 9c generally; few heavy kinds at \$8.90@8.95. Pigs and lights generally 9c, with a few sales at a little more money. Roughs, \$7.50@8; stags, \$6.50@7.25; market closed strong, and indications are that we will have a good trade the balance of the week.

The sheep and lamb market was active today, with prices about 15c lower than the close of last week; most of the choice handy lambs selling from \$7.40@7.50. Lambs weighing 85 to 90 lbs. very slow, \$7@7.25. Best wethers selling mostly at \$6@6.25; ewes, \$5@5.75, owing to weight and quality. Look for little higher prices the balance of the week.

We quote: Choice lambs, \$7.40@7.50; cull to fair do., \$4@7.35; yearlings, \$6.50@6.75; bucks, \$3@4.50; wethers, \$6@6.25; handy ewes, \$5.25@5.75; heavy do., \$5@5.25; cull sheep, \$3@4.50; veals, choice to extra, \$10@11; fair to good, \$7@10.50; heavy calves, \$4.50@6.

Chicago.

May 26, 1913.

Cattle. Hogs. Sheep.
Received today 24,000 37,000 22,000
Same day last year... 20,327 54,505 19,515
Received last week... 40,120 133,899 84,246
Same week last year... 39,966 141,159 74,955

The week opens today with a very good demand for butcher stock and handy little steers at steady prices, but the heavier class of steers sells very slowly, and sellers call prices about a dime lower. Hogs are in lively general demand, opening 10c higher and becoming 15@17½c later, with sales at \$8.30@8.80, small lots of coarse heavy packing hogs bringing \$8.20 and over. Hogs received last week averaged 245 lbs., compared with 233 lbs. one year ago and 240 lbs. two years ago. The big rain storm made the sheep's fleece heavy with water, and trade dragged, with prices showing a weakening tendency except for the better class of sheep and lambs. Fed lambs made up most of the supply, and they graded better than last week.

Cattle were in only moderate demand last week, and all that prevented considerable breaks in prices was the limited supply. The only good sized run was that of 21,519 head on Monday, when prices except for the few choice offerings, averaged 10c lower, with some lots off 15c. The scarcity of the best grade resulted in their ruling steady, and on

Wednesday fat yearlings and choice handy-weights were largely a dime higher. The most marked feature of the market during the week was the very poor showing of the choicer class of cattle, few being seen after Monday. Evidently most of the well finished beefs have been shipped out of feeding districts, and the receipts are now running more to ordinary to medium short-fed kinds. The greater part of the steers received during the week found buyers at \$7.60@8.55, with the commoner light-weights going at \$7.10@7.85 and the best heavy kinds at \$8.50@8.90. Desirable yearlings brought \$8@8.65, and medium to good short-fed steers sold at \$7.90@8.25. It is a time when beef is having an abnormally small demand, the marked declines that have taken place in live cattle and beef carcasses not having been followed by reductions for beef in the retail markets, and only fair supplies of cattle are required to go around. Butchering lots of cows and heifers are more active than steers most of the time and show more firmness, selling at \$5.15@8.40, while cutters sell at \$4.65@5.10, canners at \$3.25@4.60, and bulls at \$5.40@7.50. A dull market was experienced for stockers and feeders, the former selling at \$6.10@7.85, and the latter at \$7@8. Calves of the better class had a sharp advance, finding ready sales at \$9.25@10, with sales all the way down to \$5@6 per 100 lbs. for coarse, heavy ones. Milksters and springers sold moderately at \$5@8.5, with fancy Holsteins and Durhams largely nominal at \$9@12.5.

Hogs have been showing much more underlying strength than was the rule only a few weeks ago, the eastern shipping demand having improved considerably, while the local demand has been more urgent, the packers being anxious to build up their seriously depleted stocks of provisions. The needs of the fresh pork trade are urgent also, and speculators have taken a hand in the game, purchasing at times a good many of the best consignments and afterwards assorting them and reselling to the trade. The week showed some good upward movements, and even on Monday, when 42,760 hogs arrived, there was a firm market. The hogs are averaging well in quality, and owners are making them weigh up well, the cheapness of feed and good prices for finished hogs acting as strong inducements. Choice light and medium weight butcher hogs sell the best, these being competed for by eastern buyers. Provisions have undergone large advances in recent weeks on good cash and speculative buying, and this helped to strengthen the hog market perceptibly. Hogs have been selling at the highest prices recorded in several weeks and are much higher than in most past years. After prime light hogs had sold for \$8.75 the market weakened, with hogs selling on Saturday at \$8.15@8.62½, with rough heavy packing hogs taken at \$8 and over. Stags brought \$8.50@8.85, boars \$3.50@4.50, throwout packing sows \$7.60@8 and pigs \$6.50@8.35. Prices were the same as a week earlier.

Sheep and lambs have experienced some sharp declines in prices within a week because of comparatively large offerings and a restricted general demand, packers being indifferent buyers, while much of the time there was little demand from outside sources. Fed lambs made up the principal share of the receipts, and most of the live muttons arrived shorn, woolled stock being discriminated against by the buyers. Too many heavy lambs showed up and sold to poor advantage, buyers refusing to take lots averaging 80 lbs. and over except at a good discount from prices quoted for prime handy weights. Southern spring lambs arrived to a limited extent, most of them coming from Louisville direct to the big packers. At the week's close sheep and lambs averaged 15@25c lower than a week earlier, heavy lambs suffering the most. Spring lambs brought \$6@9 per 100 lbs., and clipped flocks closed as follows: Lambs, \$5@7.75; yearlings, \$6@6.60; wethers, \$5.25@6; ewes, \$3.50@6; bucks, \$4@5.25.

Horses arrived too freely last week, the good demand of the previous week being lacking, and animals that were light in weight and not especially attractive in appearance sold lower very generally. The poorer horses brought \$85@125 per head, with farm chunks very slow at \$140@215 and desirable pairs weighing 2,400 to 2,550 lbs. quoted at \$350@425. Farm mares of the better class sold singly on the basis of \$235@285, and drafters of prime grade and heavy weight were scarce and firm at \$300@350. The next best ones of lighter weight sold all the way down to \$235, while 1,250 to 1,350-lb. chunks brought \$185@250. Livestock pairs were valued at \$250@350, with little demand.

MEETING OF OAKLAND COUNTY HORTICULTURAL SOCIETY.

The Oakland County Horticultural Society will be entertained by Messrs. W. J. Spicer and J. T. Miller at their fruit farm, two and a half miles west of Birmingham on Saturday, June 7.

The meeting will commence at 10:30 a. m., standard time, at W. J. Spicer's residence. "Small Fruits on a General Farm," will be discussed in the forenoon. Lunch will be served at 12:00 o'clock.

At 1:00 p. m. Prof. O. K. White, of M. A. C. will give a lecture and orchard demonstration on "Thinning Fruit." Conveyances will be at the Birmingham D. U. R. waiting room at 10:00 a. m., standard time, to meet anyone who may wish to attend the meeting.

All members and anyone interested in horticulture are very cordially invited to attend.—Sarah E. Sly, Sec.

A great many Texas cattle afflicted with ticks have been dipped in Texas preparatory to being shipped to South Dakota and Wyoming pastures, and it is stated on good authority that some 20,000 head will be moved.

THIS IS THE FIRST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market. May 22, 1913.

Cattle.

Receipts, 884. All grades strong at last week's and Wednesday's prices.

We quote: Best steers, \$8.50; steers and heifers, 1000 to 1200, \$7.50@7.75; do. 800 to 1000, \$7.25@7.65; do that are fat, 500 to 700, \$6@7; choice fat cows, \$6.25@6.50; good do., \$5.50@5.75; common cows, \$4.50@5; canners, \$3.75@4.25; choice heavy bulls, \$6.50@7; fair to good bolognas, bulls \$6.25@6.75; stock bulls, \$5.50@6; choice feeding steers, 800 to 1000, \$7@7.25; fair feeding steers, 800 to 1000, \$6.50@6.75; choice stockers, 500 to 700, \$6.25@6.50; fair stockers, 500 to 700, \$6@6.25; stock heifers, \$5@5.50; milkers, large, young, medium age, \$60@90; common milkers, \$40@45.

Spicer & R. sold Sullivan P. Co. 6 steers av 911 at \$7.30, 3 do av 853 at \$7.30, 1 cow weighing 880 at \$6.25, 1 steer weighing 820 at \$7.30, 1 bull weighing 1200 at \$7.60, 6 cows av 1103 at \$6.25, 1 do weighing 1020 at \$6.50, 1 do weighing 1050 at \$6.80, 8 butchers av 582 at \$6.90; to Ward 2 cows av 785 at \$5; to Newton B. Co. 9 butchers av 911 at \$7; to Mason B. Co. 18 do av 877 at \$7.55; to Rattkowsky 2 cow and bull av 1020 at \$6.50, 1 cow weighing 1100 at \$5.50; to Mason B. Co. 9 butchers av 872 at \$6.15.

Bishop, B. & H. sold Bresnahan 6 steers av 695 at \$6.25, 2 cows av 775 at \$4.25; to Parker, W. & Co. 1 bull weighing 1630 at \$6.50, 1 do weighing 900 at \$6.40, 4 cows av 1137 at \$5.50, 2 steers av 790 at \$7.45, 1 do av 1044 at \$7.70, 1 bull weighing 1190 at \$7; to Sullivan P. Co. 10 cows av 1062 at \$6.25, 3 heifers av 800 at \$7.40, 2 cows av 1040 at \$6.25, 1 do weighing 830 at \$5, 1 steer weighing 860 at \$6.50, 5 cows av 1006 at \$5.35, 8 do av 997 at \$6.25, 1 steer weighing 1220 at \$7.50, 1 bull weighing 900 at \$6.25, 3 do av 1580 at \$6.75, 11 steers av 1016 at \$7.60, 4 cows av 990 at \$6.30, 3 steers av 807 at \$7.10, 3 cows av 970 at \$6.25; to Hammond, S. & Co. 1 bull weighing 1000 at \$6; to Lillie 1 cow weighing 780 at \$5, 2 do av 875 at \$5.60, 1 do av 891 at \$5, 2 do av 800 at \$5; to Bresnahan 3 heifers av 650 at \$6.25; to Newton B. Co. 39 steers av 994 at \$7.60, 9 do av 816 at \$7; to Thompson Bros. 1 cow weighing 880 at \$3.50; to Sullivan P. Co. 1 cow weighing 930 at \$5.75; to Bresnahan 1 bull weighing 1320 at \$6.60, 1 cow weighing 780 at \$4, 1 bull weighing 1390 at \$6.50; to Mason B. Co. 10 steers av 910 at \$7.65.

Roe Com. Co. sold Sullivan P. Co. 5 cows av 976 at \$5.50, 8 butchers av 841 at \$6.85; to Hammond, S. & Co. 26 steers av 798 at \$7.25, 3 bulls av 1333 at \$6.50; to Kamman B. Co. 10 steers av 845 at \$7.55, 1 do weighing 550 at \$6.50, 3 cows av 975 at \$6.50; to Ogden 3 cows av 840 at \$5.50, 3 do av 857 at \$5.50, 5 stockers av 468 at \$5.60, 3 cows av 850 at \$5.50; to Parker, W. & Co. 24 steers av 1260 at \$8.25; to Sullivan P. Co. 2 bulls av 1000 at \$6.75, 11 steers av 890 at \$7.40; to Kamman B. Co. 19 steers av 940 at \$7.75; to Newton B. Co. 7 cows av 924 at \$6.75; to Ogden 1 cow weighing 930 at \$5.30.

Haley & M. sold Mason B. Co. 10 cows av 1035 at \$6; to Goose 2 cow and bull av 835 at \$6.10, 2 cows av 1005 at \$5, 2 bulls av 950 at \$6.35; to Newton B. Co. 22 steers av 900 at \$7.50; to Sullivan P. Co. 4 do av 960 at \$6.35, 1 do weighing 880 at \$6.75; to Hammond, S. & Co. 22 do av 864 at \$7.55; to Chambers 30 feeders av 704 at \$7; to Bresnahan 3 bulls av 677 at \$6; to Bray 4 cows av 762 at \$5; to Applebaum 2 steers av 750 at \$6.85, 2 cows av 915 at \$5.65; to Newton B. Co. 28 steers av 882 at \$7.20, 6 do av 866 at \$7.25; to Sullivan P. Co. 21 do av 976 at \$7.85.

Haddrell sold Newton B. Co. 1 cow weighing 1020 at \$5, 1 bull weighing 1140 at \$6.

Groff sold Sullivan P. Co. 4 steers av 1180 at \$7.60, 4 cows and bulls av 870 at \$6.50.

Lowenstein sold Bresnahan 5 bulls av 1088 at \$6.25, 4 cows av 1065 at \$6.25, 8 do av 970 at \$5.25.

Same sold Kamman B. Co. 18 steers av 864 at \$7.45.

Veal Calves.

Receipts, 963. Market strong at last week's and Wednesday's prices. Best, \$9@9.50; others, \$5@8; milch cows and springers strong.

Roe Com. Co. sold Sullivan P. Co. 6 av 125 at \$9; to Rattkowsky 15 av 140 at \$9.25; to Sullivan P. Co. 6 av 125 at \$9; to Rattkowsky 2 av 115 at \$8.75, 2 av 135 at \$9, 9 av 150 at \$8.75, 4 av 108 at \$7; to Nagle P. Co. 4 av 175 at \$9.50, 12 av 160 at \$9.50, 1 weighing 90 at \$7; to Barlage 4 av 145 at \$9.50.

Sandall sold Kull 8 av 140 at \$9.35.

Kalaher sold Sullivan P. Co. 16 av 145 at \$9.25.

Spicer & R. sold Applebaum 17 av 140 at \$8.75; to Goose 12 av 135 at \$9; to Burnstine 28 av 150 at \$9.25; to Sullivan P. Co. 25 av 140 at \$8.25; to Bray 3 av 155 at \$9.50; to Goose 13 av 135 at \$9; to Newton B. Co. 6 av 140 at \$9.25.

Long sold Hammond, S. & Co. 6 av 140 at \$8.75.

Groff sold Burnstine 9 av 140 at \$9.50.

Sharp sold Applebaum 11 av 150 at \$8.75, 5 av 130 at \$7.

Smith sold same 10 av 161 at \$9.25.

Weeks Bros. sold Newton B. Co. 13 av 130 at \$9.25.

Haley & M. sold Sullivan P. Co. 1 weighing 200 at \$9.50; to Applebaum 1

weighing 120 at \$9; to Newton B. Co. 14 av 150 at \$9.25, 9 av 140 at \$9; to D. Goose 3 av 140 at \$9.50, 7 av 135 at \$9.25; to J. Goose 38 av 130 at \$9.10.

Bishop, B. & H. sold Parker, W. & Co. 13 av 130 at \$9, 26 av 150 at \$8.75; to Sullivan P. Co. 1 weighing 160 at \$9.25, 8 av 140 at \$9.25; to Nagle P. Co. 7 av 150 at \$9.50, 13 av 140 at \$9.25; to Thompson Bros. 20 av 130 at \$8.75; to Goose 2 av 110 at \$7.50, 9 av 145 at \$9; to Hammond, S. & Co. 16 av 140 at \$8.90, 13 av 150 at \$9.25, 27 av 125 at \$8.60; to Parker, W. & Co. 51 av 125 at \$8; to Hammond, S. & Co. 11 av 140 at \$9.50, 6 av 145 at \$9.50, 6 av 155 at \$8.75, 2 av 170 at \$7, 8 av 140 at \$9, 9 av 150 at \$9.50, 1 weighing 100 at \$7, 9 av 155 at \$9; to McGuire 15 av 150 at \$9.50; to Burnstine 21 av 155 at \$9.25; to Sullivan P. Co. 2 av 140 at \$9.25, 12 av 150 at \$9.50, 4 av 150 at \$9.25, 6 av 150 at \$9, 2 av 145 at \$9.25.

Dancer & K. sold same 3 av 105 at \$9.50.

Sheep and Lambs.

Receipts, 1824. Market strong at last week's and Wednesday's prices. Best lambs, \$7.50; fair do., \$7@7.25; common do., \$4.50@6; fair to good sheep, \$5.25@5.50; culls and common, \$2.50@4.

Bishop, B. & H. sold Sullivan P. Co. 33 lambs av 55 at \$5.50, 2 sheep av 110 at \$5, 4 do av 105 at \$4; to Thompson Bros. 30 lambs av 70 at \$7.50; to Mich. B. Co. 40 sheep av 90 at \$5; to Hammond, S. & Co. 204 lambs av 68 at \$7.35; to Mich. B. Co. 20 sheep av 95 at \$5.50, 4 do av 100 at \$4.50; to Kull 11 do av 88 at \$4.50, 24 lambs av 60 at \$6.50; to Young 44 do av 78 at \$7.25; to Barlage 17 spring lambs av 48 at \$8; to Parker, W. & Co. 104 mixed av 78 at \$6.40; to Mich. B. Co. 1 buck weighing 190 at \$4.50, 27 sheep av 90 at \$5.25, 49 do av 67 at \$7.25; to Weber 28 feeding lambs av 70 at \$6.25; to Young 36 do av 55 at \$6.50; to Hayes 71 do av 55 at \$5.50, 21 do av 60 at \$6; to Mich. B. Co. 78 sheep av 85 at \$5.50; to Fitzpatrick Bros. 7 spring lambs av 55 at \$8, 84 do av 75 at \$7.50.

Haley & M. sold Sullivan P. Co. 4 sheep av 107 at \$4.75, 2 spring lambs av 60 at \$10; to Newton B. Co. 22 sheep av 105 at \$4.50, 32 lambs av 67 at \$7; to Goose 11 sheep av 120 at \$4.50.

Roe Com. Co. sold Barlage 13 sheep av 100 at \$4; to Rattkowsky 1 do weighing 130 at \$5, 1 do weighing 180 at \$5; to Barlage 8 do av 98 at \$5, 46 lambs av 70 at \$7.25.

Spicer & R. sold Young 16 lambs av 65 at \$5.75; to Mich. B. Co. 30 sheep av 105 at \$5; to Eschrich 43 mixed lambs av 55 at \$5.

Sharp sold Mich. B. Co. 18 sheep av 80 at \$5.50.

Hogs.

Receipts, 5346. Market steady with Wednesday; 10@15c higher than the close last week.

Range of prices: Light to good butchers, \$8.75; pigs, \$8.75; mixed, \$8.75; stags one-third off.

Bishop, B. & H. sold Hammond, S. & Co. 2500 av 190 at \$8.75.

Same sold Sullivan P. Co. 310 av 130 at \$8.80.

Roe Com. Co. sold same 242 av 140 at \$8.80.

Haley & M. sold same 130 av 170 at \$8.80, 240 av 190 at \$8.75.

Spicer & R. sold Parker, W. & Co. 350 av 180 at \$8.80.

Friday's Market.

May 23, 1913.

Cattle.

Receipts this week, 977; last week, 1171. Market strong at Thursday's prices. We quote: Best steers, \$8; steers and heifers, 1000 to 1200, \$7.50@7.75; do. 800 to 1000, \$7.25@7.65; do that are fat, 500 to 700, \$6@7; choice fat cows, \$6.25@6.50; good do., \$5.50@5.75; common cows, \$4.50@5; canners, \$3.75@4.25; choice heavy bulls, \$6.50@7; fair to good bolognas, bulls, \$6@6.25; stock bulls, \$5.50@6; choice feeding steers, 800 to 1000, \$7@7.25; fair do., 800 to 1000, \$6.50@6.75; choice stockers, 500 to 700, \$6.25@6.50; fair do., 500 to 700, \$6@6.25; stock heifers, \$5@5.50; milkers, large, young, medium age \$60@70; common milkers, \$40@55.

Receipts this week, 1169; last week, 1393. Market strong at Thursday's prices. Best, \$9@9.50; others, \$5@8.50; milch cows and springers strong.

Sheep and Lambs.

Receipts this week, 1997; last week, 2939. Market steady at Thursday's prices. Best lambs, \$7.25@7.50; fair do., \$6.75@7; light to common do., \$4.50@6; fair to good sheep, \$5.25@5.50; culls and common, \$2.50@4; spring lambs, \$9@10.

Hogs.

Receipts this week, 6638; last week, 8217. Market 10c lower than Thursday. Range of prices: Light to good butchers, \$8.70; pigs, \$8.65@8.70; mixed, \$8.65@8.70; stags one-third off.

CROP AND MARKET NOTES.

Kalkaska Co., May 24.—Owing to cold rain the past week only a small portion of corn is planted; farmers generally had their ground ready to plant but will now be compelled to wait in order to get the ground in proper condition. Oats and grass growing slowly. Farmers plowing for beans and potatoes; some early potatoes planted. Fall grain looking fairly good. Old potatoes principally marketed, are paying 50c at loading points. Farmers feeling blue over tariff legislation.

Shiawassee Co., May 6.—Season cold and backward with prevailing north and northwest winds. Corn planting is underway a large number of fields already planted. The season has been very favorable to doing farm work, being cool to work teams, and the soil in excellent condition for working. Meadows are looking well, but show the need of warm growing weather. Wheat is a very promising crop, having come through the winter in splendid condition and favored with a cool spring. New seeding is looking

well. About the same area of beans will be planted in this section this season, although farmers are somewhat doubtful as to price the coming fall, believing that the tariff legislation will lower their value. Not so many potatoes will be planted as usual. Fruit so far has withstood the cold, backward season well and promises a fair crop. Very few hogs in the county. A large amount of barn building being done.

Ottawa Co., May 26.—Unless a heavy fall of rain comes soon, meadows that were mown last year will hardly cut one-half ton per acre. Owing to lack of moisture oats are a poor stand and are not growing much. Some fields of wheat are looking fairly well, but some fields are looking very poor. Pastures are backward in starting on account of so much cold weather. There will be a larger acreage of corn this year; about 75 per cent has been planted, but it is very slow coming up. Farmers are doubling nearly all their crops for the canning factory at Coopersville. Peas that have been sown for the above factory, now promise to be an immense crop, as the season has been favorable so far. Last year it was too wet for peas. There is a fair prospect for a crop of apples, but peaches and plums have been about all killed. There will be a few cherries and a fair crop of strawberries of the late varieties.

Livingston Co., May 26.—The weather for the past week has been very wet and cold and as a result there is probably not more than one-third of the corn planted, and what is planted would be better off out of the ground for it is so wet and cold that a poor stand is almost certain. Farmers are taking advantage of the cold weather and are rushing their plowing for beans as fast as possible. This is just the weather for hay and wheat, both of which are doing nicely. The frost did not do as much damage to fruit as was at first feared. Wool nearly all sold at from 17 to 20c per lb. Beans have not advanced in price as is usual at this season and not many are moving to market.

Genesee Co., May 22.—Farm work well advanced, owing to favorable weather conditions. Instead of the excessively rainy spring months of the past few years there has been scarcely sufficient moisture to ensure a good crop of hay and wheat. Farm wages very high and help scarce. An alfalfa campaign is being organized in the county under the management of the farm adviser and corn contests are well under way in a number of rural schools. The highway improvement work is going briskly along with scores of men and teams busy hauling material and at construction of road beds under state reward plans. It is expected that close to 50 miles will be added to the number of miles already completed before another fall.

Lapeer Co., May 19.—Lots of rain the past week. Winds northerly; cold now. Soil cold and farmers in no hurry to put in potatoes, corn, beans and other crops, fearing such seed would rot in the ground. Fall grain, oats, meadows and pastures have a fine appearance. Spring seedings of clover caught good. We are not positive but think that the freezing of May 7-8 has damaged the peach and plum prospects, also early apples, currants, etc., but late apples seem to be all right. This week is for the third spraying of orchards. The price of 1912 hay has dropped to \$8 per ton and slow sale at that. Spring pigs scarce and quite difficult to find, prices the highest ever known, \$3@5. Some farmers have sold their sheep. Wool at 18c and a prospect of still lower prices. Potatoes, 35c; oats, 36c; eggs, 18c; butter, 28c, and so on down the scale. Lapeer county will have the smallest acreage of beets ever known.

Mecosta Co., May 20.—The latter portion of April was nice and warm but May has been a very cold month generally. Much of the small fruit is killed. Many of the farmers have their corn planted. Prospects were never better for a good hay crop. For all of the cold weather the oats are looking better than usual for this time of the season. Hardly any live stock left for sale. Potatoes are mostly all out of the farmer's hands.

Washtenaw Co., May 18.—Farmers are to be congratulated on the spring so far. It has been very favorable indeed, while some were borrowing needless trouble because for a time it was too cold, and for a time too dry, the present rains have come just in time to make pastures, meadows and oats improve rapidly. The cool, dry weather was especially favorable to prepare the corn ground and farmers have improved the time so that generally they are well abreast of the work. While the late frost possibly did some damage to some kinds of fruit, the outlook is yet very favorable. If the politicians were as kind and just to the farmer as the weather man, there would be small ground for complaint. All kinds of stock scarce and high; a large demand for pigs and not enough to go around; the same with milch cows, so our Canadian friends will have a good market opened to them; but we best be optimistic for it won't be for long.

New York.

Niagara Co.—One week of very hot weather and the rest of the month very cool. Roads in fine condition; wheat is looking fine. Splendid showing for cherries and peaches. Apples and pears will show in a couple of weeks. Wheat is selling for \$1 per bu; bran, \$23 ton; corn and oats, \$30; middlings, \$27; corn meal, \$27; cracked corn and mixed feed, \$27; beans, \$1.75; pork, 11c; little pigs, \$5.

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Their Memorial Day Guests.

By MRS. F. NISEWANGER.

It was early in April that John Brandon, the bent commander of Morley Post, G. A. R., called a meeting of his comrades to make arrangements for the coming Memorial Day. There was such a tiny handful of them, compared to the strong band that a few years ago met in the hall for the same purpose, that they almost shivered with the chill and loneliness of it.

"Well, boys, what are we going to do?" Commander Brandon asked informally. Someway, parliamentary usage and all stiff formality seemed out of place here.

"Same old thing, I suppose," sighed Comrade Williams. "Get one of the preachers to donate us a talk, and get the teachers to learn the children some pieces and songs, and get the women to decorate the Obery House and make bouquets for the graves."

The old men listened half-heartedly; they knew the program as well as Comrade Williams did.

"Seems like all patriotism's dyin' out of the present generation," Comrade Ellis regretted gravely. "I s'pose they'll do all these things if we ask them to, but it almost seems like askin' for charity and I hate to do it again."

Comrade Brown straightened a little and the rest remembered that he this spring leaned a little more heavily on his cane than usual.

"Seems like I'm too tired to do much of anything," he sighed. "It don't seem to be possible to do much educatin' of the young, and the boys sleepin' over on the hill know our hearts are all right. Couldn't we just get some flowers and have the hack take us over to put them on the graves?"

"We'll sure do as much as to decorate the graves as long as there are any of us left to do it," Comrade Rice quavered, "and when we're gone I s'pose they'll go undecorated."

The old men pondered seriously and regretfully, but finally decided to follow Comrade Brown's suggestion.

"I guess we have earned a rest from getting up public exercises if we feel that way about it," Commander Brandon acquiesced, and the meeting was adjourned.

A week later a very different meeting was held in town. The band that organized the previous season had been only able to buy the instruments needed. This spring they wanted new uniforms, and a cafeteria supper, followed by a short, bright program, had been arranged for their benefit by the matrons and young women of the town.

It was patronized liberally and, at the close of the program Roy Sargeant, leader of the band, requested that the young people remain for a short business meeting in which they should all be interested. When their elders had withdrawn, young Sargeant called the meeting to order and announced that a little matter in connection with their personal honor and the credit of the town, had just come to his attention and he felt that he should lay it before them at once.

"We have been disgracefully selfish and thoughtless," he began emphatically, then told swiftly and impressively of the little G. A. R. meeting his grandfather, as a member of Morley Post, had attended the week before. "Grandfather wasn't complaining, either," Roy added, hastily. "He just quietly told me how they felt about it when he got back from the meeting, and I carelessly inquired about their plans. It's a wonder I thought to be even decent enough to do that!" he railed at himself scornfully. "I think it is about time this vaunted 'younger generation' forgot band concerts and ball games long enough to entertain our old soldier friends a little while. What is your pleasure in the matter?" and Roy sat down.

Half a dozen young fellows sprang to their feet. "I move that we organize a 'Sons of Veterans,'" one said promptly.

Then Bernice Rowell hastily addressed the meeting. "Not now, Mr. President," she exclaimed; "we girls want to be in this, definitely, too. I move that we organize a Memorial Association, to which all descendants and interested friends of the veterans are eligible."

Bernice's motion was seconded, thus coming before the meeting for discussion, and, when finally put, was carried unanimously.

One dollar yearly dues were decided upon, for incidental expenses and "so we can have money to hire a good speaker and not have our old soldiers feel that

one of the ministers is giving them an address out of charity," Edith Loring exclaimed with flushed cheeks.

Roy Sargeant, the newly elected president of the Memorial Association, asked: "Can't we keep quiet about this until all our plans are made and the program is in the papers, giving the Post a pleasant little surprise?"

"We can and we will," was the answer, and they did.

Good committees were appointed on program, decoration, transportation and entertainment. Then they adjourned to meet in two weeks and report.

It was ten days before Memorial Day that Comrade Williams, with the town's Weekly News open in his hand, met Commander John Brandon on the street and stopped to ask in surprised excitement:

"What's all this mean?" pointing to an unusually elaborate Memorial Day program appearing on the front page. "I thought we decided not to do anything special this year."

"So we did," John Brandon acquiesced, "and I don't really know anything more about it than you do, but I suspect our youngsters waked up and are responsible for it."

"Looks good, don't it? I've had a kind of gone feeling ever since we made up our minds not to do anything. Seemed most as bad as giving up Sunday and wors'n forgetting birthdays and wedding anniversaries. Seemed like the boys over on the hill mightn't understand and would think we had backslid."

Tom Williams openly wiped his eyes as John Brandon put a trembling, sympathetic hand on his arm, saying: "Guess we all felt about the same over it. I come mighty near callin' another meeting to reconsider, but it'll be all right now. If the young folks are shoulderin' it, all things'll go off better than as if we had tried to help."

"And did you notice who's to speak?" Comrade Williams broke in excitedly. "Lawyer Tomlinson, the best speaker in the county! Costs money to get Tomlinson, I can tell you. We won't feel like paupers this year. Wonder if all the boys have seen this. Seems like I couldn't

sleep tonight till I've seen 'em all and asked 'em, so I guess I'd better be off."

A few days later each member of the Post received a neat invitation asking him to be the guest of the Association on Memorial Day, and further requesting him to be ready to go to the G. A. R. hall when called for shortly after one o'clock, as exercises at the opera house would begin promptly at two.

So Memorial Day drew near with a new interest about it in a satisfied little feeling of being cared for, and the fascination of having something in the nature of a surprise withheld.

Automobiles left their garages promptly, went to the homes for the veterans and took them to their hall, where they always met to get their badges and the flag behind which they marched to the opera house. A little surprise awaited them here in the form of Bernice Rowell with a basket of flowers on her arm.

She met each old friend with a hand-clasp and a smiling greeting, and pinned a spray of flowers on each coat. "We have hosts of flowers for you to take to the cemetery, but we wanted you to wear some, too," she explained with a gentle smile, the shadow of the coming time, when there would be no veterans' coats to pin flowers to, darkening her bright eyes.

Trembling lips murmured "Thank you," and loyal hearts beat a little quicker because of the loyalty of "the younger generation."

Vacancies in the ranks come fast in these later years and it did not take many autos to carry the little band to the opera house, but the procession formed, the band leading the way afoot, and stopped at the home of Commander Brandon for the veterans' wives who had been asked to meet there and await them.

At the opera house they were met by a committee from the Memorial Association, and they marched in between a double line of the members to the seats reserved for them in front. The crowded house was almost as still as a vacant building but throbbed with sympathy and love.

Commander Brandon's daughter, a sweet young matron with her little ones about her, marked the short line with brimming eyes and hid trembling lips in her baby's hair as her father marched by. One felt that there would come a Memorial Day after awhile when she could not quite bear to be with those who

AT ANDERSONVILLE.

By MRS. M. B. RANDOLPH.

The August sun was beating with heavy waves of heat On scanty pine-tree shadows, and sands of village street; Without, the burning billows from brazen heavens rolled O'er thirty thousand soldiers in squalid prison-fold.

Merciless its arrows that pierced their reeling heads, Save where, like sheep, they huddled in crowded, noisome sheds; Sickening the odors that rose to ether's dome Till stoutest-hearted 'mong them sighed and wept for home.

Across the fatal "dead-line" he dared not pass in life, A little blue-coat laddie was borne from pain and strife; Upon his peaceful features the mystic sculptor—Death— Had chiseled lines of beauty ere it stole away his breath.

In rough-hewn morgue or "dead-house," outside the palisade, By stranger hands and hostile his youthful form was laid, Waiting for the moment when no funeral drum Should herald his approach to trench that served as tomb.

At doorway of the "dead-house" another laddie stood Gazing on the "enemy" in sad and tender mood; A scion of the "chivalry" whose color was the gray, A transient guest of Anders'ville that sultry summer day.

Surmising what the impulse that war-ward made him roam, Guessing at his parentage, and where his northern home; Wond'ring if his mother still was waiting for her boy And dreaming of the hour when she'd greet him there with joy;

Picturing the loneliness that wore his life away In his dreary exile, no more an "enemy" Seemed the little blue-coat to the southron's son, But just a homesick laddie that grief had fought and won.

And as he gazed upon him with years (like his) so few, The tender shoot of "chivalry" brushed from his eyes the dew; No more was hated foeman this northern soldier lad, But boyish friend and comrade, the same as those he had.

All bitter thoughts and feelings, in that solemn hour, All whilom animosity, were shorn of vengeful power; Instead, the gentle teachings, learned at his mother's knee, Replaced his southern "honor" with truer chivalry.

And as they bore the "yankee" boy to dismal graveyard nigh, The "rebel" laddie followed—he scarce could tell you why— But youth to youth responded, and he walked behind the bier, He alone the mourner, and his alone the tear.

* * * * *

They sleep—the northern heroes—where the winds of God Blow their only requiems above the southern sod; They sleep—the southern heroes—where the pole-star's light Gilds their lonely pillows through the northern night.

Both alike they struggled through the long, hard war; Both alike they followed the flag they'd pledged their for; Both alike we'll laurel when the drum-beat rolls, And o'er them both we'll murmur, "God rest alike their souls."

celebrated it, because her father's place would be vacant.

It seemed as though the children had never before sung or spoken so well, and their pretty drills and poses were without a flaw, but the climax came when Lawyer Tomlinson rose to give his address. The veterans settled back, proud and expectant, as it really did mean a great deal to them to have a speaker specially provided for the day.

At the close of the exercises the autos were waiting to take them and their flowers to the cemetery a mile away, to decorate the graves of comrades there and to perform the last solemn ceremony of the day. The guests supposed that everything was over when they left here, but a drive in the country, timed to last until just about six o'clock, had been planned and was enjoyed to the utmost. On the return they were taken to the largest church in town, in whose basement the young people had a tempting hot supper all ready for them.

"I'm plumb flabbergasted with it all," Comrade Rice confided to his wife. "Nothin' wouldn't surprise me now—not even to see angels."

"Seems to me we've been seen' them and been ministered unto by them," Mrs. Rice answered softly.

"The buzz wagons again?" smiled Comrade Jones as they came out on the street after supper and found the autos still waiting.

The young drivers nodded, smiling, too. "Just one more spree before we all go home and go to bed."

The wives were taken to Mrs. Brandon's for a quiet evening together, and then the autos headed straight for the park. How old eyes did brighten when they saw what was prepared for them there—a splendid camp fire, with comfortable seats about it, a pile of wood at one side, and rugs and blankets in case any should feel the need of them in the spring evening's chill.

Then the band withdrew to the farthest corner of the park, where it softly played all the old patriotic airs that "the boys" loved, and acted as a successful decoy to lure and entertain any who chanced to be abroad, that the veterans might be left to themselves for a quiet, never-to-be-forgotten evening of exchanged confidences and reminiscences.

At nine o'clock, when the lights of slowly returning autos began to gleam in the darkened streets, John Brandon rose to his feet and commanded gently, "Comrades, uncover."

The order was promptly obeyed and heads bent reverently as a brief, heartfelt prayer was uttered, and when the earnest, "God forever bless our dear young people," ended, "Amen and amen," came in soft, trembling response.

HELPING THE SQUIRRELS.

BY JULIA RAMSEY DAVIS.

Susie and Jack loved to play in the big grove just back of their house, for there were so many interesting things there. Birds of many kinds flitted to and fro among the trees, and sometimes little squirrels ventured out where they could watch them.

One day they saw two squirrels come out and frisk upon the fence. They sat there several minutes chattering vigorously.

"I wonder what they are saying," Susie whispered to Jack.

"You know squirrels can't talk!" Jack exclaimed.

"Of course, they can talk, in squirrel language," Susie insisted, "or how could they ever make each other understand what they want? Let's be right still, and watch, and we will learn what they are saying."

After awhile the little squirrels jumped from the fence, scampered up a tree, stopped where a blue-bird had built a nest in the early part of the season, and again began a spirited chattering.

"Now I know what they are talking about," said Susie. "They are planning to build a home where they can live and raise some cute little baby squirrels. But they don't like that old nest. I wish we could show them the place where the wood-pecker lived in the hollow of that old oak tree by the fence last year. I am sure that would just suit them."

"I believe it would make a good home for them," agreed Jack, "but as we can not speak squirrel language, the thing for us to do is to keep quiet and let them do their own choosing."

After running around, and up and down many trees, at last the squirrels reached the hollow oak and again began to chatter. One would run into the hole and

stick his head out, then the other would follow. "This is the place we have been looking for," they seemed to say, by their actions.

"Jack, they are going to live there!" exclaimed Susie, "and we can watch them build their home."

When the children went to the grove the next afternoon, the squirrels were very busy putting their new home in order.

"Let's help them," said Jack.

"Why, we can't," said Susie. "We don't know how they want it built; besides if we went near it would frighten the dear little things away."

"But there is a way we can help, and not frighten them," insisted Jack. "We can put something to eat at the foot of the tree so they won't have to stop work and go away to get their meals."

"That is a fine plan," Susie agreed.

So, every day the children brought peanuts, bread, and other things they thought the squirrels would like, and left them where the little workers would be sure to find them.

While the squirrels were building their dear little home in the wood-pecker's old nest they became so accustomed to Susie and Jack that when they saw them coming they would hasten to the feeding place to meet them. By and by, when the little baby squirrels came, they, too, became quite tame, and the whole squirrel family would eat from the children's hands.

When mother and father learned of Susie's and Jack's pets, they said: "This will prove to you children, that even the wild creatures of the forest appreciate, and may be made our friends, by continued kindness. We should never forget that the same good Father placed us all here—people and animals, and birds and fowls. He gave people dominion over His dumb things, and He wants us to be gentle and patient in our treatment of them."

Little Willie—Say, pa, why do they stamp eagles on our coins?

Pa—Probably as an emblem of their swift flight, my son.

"Was he a good preacher?"

"No. His sermon was stupid enough to make you sleepy, but his voice was loud enough to keep you awake."

Willie—Did you have an excuse for staying home from school today?

Earlie—No; but if father gives me the licking I expect, I'll have a good excuse for staying home tomorrow.

"George, dear," said the young wife, "you are growing handomer every day."

"Yes, darling," replied the knowing George. "It's a way I have just before your birthday."

THE HANDLE ON A HAT.

BY ALONZO RICE.

You are going out into the world, my boy; Its busy scenes your mind will soon employ;

And I know advice is cheap, And I know, too, we shall reap Rich reward for each kind action on the way!

Kindly promise me you will remember that,

And the latter words I say, Don't forget to use the handle on your hat!

Just a smile of recognition to a friend, He will bear the recollection to life's end; If you meet some one unknown, Speak to him in kindest tone; For childhood shows the man as morn the day!

All the world about us recognizes that, And can tell your future way, By the using of the handle on your hat!

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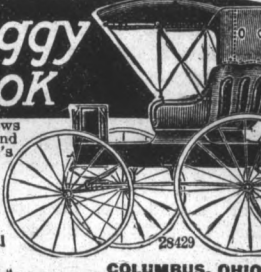
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Woman and Her Needs

At Home, and Elsewhere



The Wife Who Works at Home is a Wage Earner.

WE have been hearing a great deal lately about the chivalry of the American man towards the women of his family. Those opposed to suffrage have assured us that the American man considers his wife his companion and partner, and that he will see she has everything she needs and that justice would give her. The Englishwoman may need suffrage, we are told, because over there man is boss. But here at home, bless your sweet little heart, woman runs everything anyway, so why should she want to vote? The American man is just naturally so easy and obliging that he can't help giving woman anything she wants, so there isn't the least reason in the world why she would want to help make laws or decide who shall make and enforce them.

There is a great deal of truth in all this in some cases, but looking over the field by and large, it strikes me that the American man is generous with woman so long as it doesn't cost him anything. But if it is going to make him dig down in his pocket and divide up on the income, his generosity often stops with his loud talk.

How many of the women who read this column have half of the family income to handle as they choose? How many have one-fourth? How many have one-tenth? How many have a dollar a month to do with exactly as they please, and no explanations demanded afterwards? Now don't be bashful, speak right up in meeting. A few scattered voices lay claim to the dollar, but I'll wager even they have to account for 50 cents of it. If it was put to actual count I'll bet the number of women who could buy a fireless cooker, say, without arguing and explaining and cajoling and scolding for weeks before hand, could be counted on the fingers of my two hands. Yet our American men are generous to a fault, and give their wives even too much liberty.

The trouble with us as wives is that we have too long agreed to the idea that we are not wage-earners. The work the husband does is what brings in the money. Therefore, he argues, he is entitled to say how it shall be spent, and we have quietly agreed to the proposition because we abhor any fuss about money.

Would not the work we do bring in money if we were doing it for someone else? It certainly would, and a good round sum, too. Suppose every housekeeper in Michigan were to be taken sick tomorrow and be forced to drop every duty. How long would it be before the husbands would have to admit that the wives were wage earners? Where could they get another woman to come into their homes and do for money even a half of what the wife does for her board and clothes? By paying \$5.00 or \$6.00 a week a woman might be found who would come in and get the meals and keep things reasonably clean. But she certainly would not care for the fowls and young stock, make the garden, tend the fruit, do the mending and sewing and darning and looking out for waste, that the wife does. The money the faithful wife saves in watching the little things, would pay the wages of a good girl in many homes. Yet how many are all unwilling to admit that wives and mothers are wage earners?

Now I do not wish to advance the theory that every man should begin to pay his wife a weekly wage for doing the housework. Wives do not want to be paid, they want to be considered equal partners. And a partner surely has a right to his share of the profits without making a fuss about it. Few men could give the wife \$5.00 a week for her own personal use, but she should be given her just share of the income, and given it freely and gladly without having to ask it or demand it, or steal it if worse come to worst.

The faithful wife certainly helps to earn the living, and she should be consulted every time any large sum of money is to

be spent. Her word should have equal force with the husband's and the chances are equal that her judgment will be as good as his.

I always admired that woman in "The Second Mrs. Jim." She was middle-aged when she became "The Second Mrs. Jim" and had become used to spending her own money. "Jim" allowed the "butter and egg" money would run the house and she could worry along with no spending money, the same as the first "Mrs. Jim" had done. The new "Mrs. Jim," however, "allowed" she would just put the money from butter and eggs in the bank along with "Jim's" account and that they would each have a check book and draw when they needed, as partners should. And they did.

There would be more happy homes if other wives followed her example. Wifely submission is a good idea for lordly husbands, but it doesn't tend to make happy wives. Equality is a better working motto in this year of grace. **DEBORAH.**

LABOR SAVING DEVICES.

CAN any progressive farmer get along without a manure spreader? Would it pay him to haul the manure to the field, unload, and then scatter with a fork? This would require twice as much time and labor and the manure could not be spread over the field as evenly as the machine does the work.

Why does not the farmer's wife follow his example and do her work with machinery? "Man works from sun to sun but woman's work is never done." There is more truth in this statement than we like to admit, and the one reason is that man does his work with machinery while woman performs her many tasks by hand. When we can find an implement that will do the work of a pair of hands in the fraction of the time, why not avail ourselves of this help?

If the farmer knew of a machine that would accomplish so much in any branch of his work as the vacuum cleaner does in the home, would he hesitate about buying it?

Machinery help is now almost the only help to be had in the farm home, and these labor-saving devices for the home cost only a fraction of what the farm machinery cost. Besides, many of the home implements are used daily while the farm machines only a short time during the year. The farmer replaces his machinery every ten or twelve years while many of the home conveniences last a life time.

Woman's work is just as important as man's, although it is man's work that brings in the larger part of the income. But when the farmer's wife is disabled does his work go on just the same? It is then (and often only then), that he realizes that like the number ten, he is the one but that she is simply nought is a mistake.

Can the busy farmer's wife who is lone handed, with bushels of cherries to pick and can, afford to do without a cherry pitter? Is it true economy for her to make mince meat by chopping the ingredients when a small food grinder would do the work in a third of the time? There are very few farm homes equipped with a mangle, though about three-fourths of an ordinary ironing can be run through a mangle. As much can be accomplished with this machine in 12 minutes as can be ironed in one hour by hand work. The cost ranges from \$6 to \$25.

Sewing machine, washing machine and wringer are three time-savers that no one tries to do without. Why not add the mangle to this list and thus save many tiresome tedious hours of work? Washing is a necessity and ironing is said to be a luxury, but every woman likes to have her tablecloth well ironed and the mangle does this work better than by hand. We have all demonstrated the

fact that well ironed clothes stay clean much longer, thus saving washing.

Alcohol, gasoline and electric irons are all labor savers, and a good ironing board makes the work much easier than ironing on a table. A carpet sweeper pays a big interest in the saving of time and labor. They really pay for themselves in the saving of brooms. We have used one a dozen years and it still does as good work as when new.

The fireless cooker is another convenience that will help the housewife solve many problems, as well as save fuel, which is no small item. Many foods, such as cereals and meats, are really superior cooked by this method. When business or pleasure calls the housemother away it is a great satisfaction to know the men and children can have a warm meal and no worry about the fire. The fireless cookers with the plates made of iron to be placed on the stove to heat will be found the most useful.

The refrigerator is a great help in preserving food; physicians claim they save much sickness. But few farm homes have ice. A cement trough with water pumped by the wind-pump is a common method of cooling. The centrifugal cream separator has done as much for the farm home as any one invention. The farmer and the cow are like the United States, one and inseparable. No farmer can get along without the cow and therefore he needs the separator. Taking care of the separator is no more work than caring for the utensils of any gravity system. Caring for just the cream is much less work than caring for the whole milk. Sum it all up, the separator not only saves labor but gives superior results.

Many women, even after purchasing labor-saving devices do not give them a fair trial. We know one woman who discarded her breadmixer after a couple of trials—she wouldn't give it a fair chance, and thus dismissed an efficient servant.—M. C. B.

A PIE(EOUS SUBJECT.

BY MARY CLARK.

It is claimed that the "pie belt" of the United States extends from the Atlantic to the Pacific, east and west, and from the Gulf of Mexico to Canada, north and south. And we are all familiar with the yarn about the city boarder who asked his country landlady what kind of breakfast food she had, and received the reply, "Open-faced, cross-barred and kivered, all apple."

Every cook knows how to make apple pie, but how many know that if rich, sweet milk is used for moistening instead of water, that the pie will be much better, especially if the apples are the Ben Davis variety? Ground cloves also make better flavoring than cinnamon or nutmeg.

Rhubarb pies are much improved by a small slice of lemon, and rhubarb and seeded raisins, "half and half," make fine pies.

Gooseberries require "two sugars to one berry," and if a couple of tablespoonfuls of flour are mixed with the sugar, they will not be so apt to "leak."

Huckleberries make the favorite pie for most people, and they can be dried and used as a substitute for the little dried black currants we buy. The dried currants make pie that is "easy to take," if they are first cooked, and allowed to cool, then well sweetened and a tablespoonful of flour added to each pie. If you want a substitute for pumpkin pie, just scrape and boil a few carrots, run through a colander and make just like pumpkin pies. You can't tell the difference.

If out of all other "pie timber," make cream pie by mixing together, in one crust, one small cup of sugar, half a cup of flour, then rich sweet milk to finish filling crust three-quarters full. Grate nutmeg over top, and bake in medium hot oven.

Make imitation lemon pie by soaking scant cup of fine bread crumbs in pint of sweet milk, in which has been beaten two egg yolks. Sweeten, flavor with tea-

spoon of lemon extract. Bake in one crust, when baked, cover with whites of eggs beaten, and brown.

RECIPES.

Pieplant Pudding.—One cup and a half of rhubarb, three tablespoonfuls maple syrup, three tablespoons of melted butter, one egg, one cup of buttermilk, one teaspoon of baking soda, one cup of flour, sifted three times, one-quarter teaspoon salt, one cup granulated sugar, half a teaspoon of strawberry extract for flavoring, half cup of rolled oats. Bake in cake cups until nicely done. Serve with lemon sauce.

Maple Sugar Sandwiches.—Thoroughly mix one cup of maple syrup with one teaspoon of lemon juice. Drop in one and one-half cups of nut meats prepared by running shelled peanuts and blanched almonds through the meat grinder. Spread on slices of buttered bread.

Strawberry Tapioca.—Soak one cupful tapioca in cold water over night. In the morning, add two well beaten eggs, one cup of sugar, a bit of salt, pour in hot milk until the tapioca is covered. Flavor with vanilla. Bake until it is clear and soft, glazed a golden brown. When done, remove from the oven. Have a quart of strawberries ready when it is cool. Place a layer of fruit in the bottom of the salad dish, dress with sweetened whipped cream, then add a layer of the prepared tapioca, then a layer of fruit with whipped cream, and so on, until the tapioca has been used. Cover with a layer of the fresh strawberries rolled in sugar, and serve.—B. I. D.

Cream Puffs.—Put one pint of boiling water in a small saucepan, and half a pound of butter. When melted put in a pint and a half of flour. Stir in, being careful not to burn. When thoroughly mixed remove from the fire, cool and stir in five unbeaten eggs. Bake on buttered tins for 20 minutes, cut the sides and drop in the cream. For the cream beat one egg, add half a cupful of sugar and half a cupful of flour; boil one pint of milk, add the egg, sugar and flour with a small piece of butter. Stir until thick, flavor with extract of vanilla.

Pork Pie.—Cut two and a half pounds of the thick end of a loin of pork into three-inch slices. Place a layer at the bottom of a baking dish. Add a sprinkling from a handful of parsley and one onion chopped finely, and a dusting of pepper and salt, then a layer of pork, and seasoning, until the dish is full. Cover with a cupful of hot water and a spoonful or two of catsup. Place a tin cover over the dish and allow it to bake in the oven for at least an hour and a half. Baste occasionally, and when the meat becomes tender remove from the stove and put on a cover of puff paste. Return to the oven and bake until brown.

Cracker Jack.—One cup of molasses, two cups of sugar, one tablespoonful of butter, two tablespoonfuls of vinegar. Boil until it cracks in cold water, then take from the fire, add a half teaspoonful of soda, beat briskly and pour over popcorn and chopped peanuts.

A cough candy is made of slippery elm, flaxseed and sugar. Soak a half-pint of whole flaxseed in a cup of boiling water. In another cup put broken bits of slippery elm bark until it is full. Cover this also with half a pint of boiling water, and let it stand for two hours. Strain the flaxseed and slippery elm through a thin muslin cloth and save the liquid. Add a pound and a half of granulated sugar to it. Boil this syrup for ten minutes. Add juice of a lemon and boil until it forms candy. Test it from time to time by dropping a little in cold water. The moment it is done pour it on white paper spread on biscuit tins and let it harden. As soon as it begins to cool before it hardens, crease it with a knife, so that it may easily be broken into lozenge-shaped candies.

Parsnip Pie.—Boil the vegetable in two waters, after which remove the hard centers and mash the soft portion to a pulp; beat up an egg with butter and sugar, the same as for making cake pastry, adding to it sufficient milk to make a custard consistency; line a plate with rich dough, fill it almost with the parsnip pulp, and pour over it the custard. You may strip it or leave it plain and spread with meringue. Bake as any ordinary pie.

Cucumber Pickles.—One gallon of vinegar, one cup of sugar, one cup of ground mustard, one cup of salt, and some horseradish root. Put this in a jar and whenever you pick cucumbers stir the vinegar before putting them in. These will keep a year without canning.—Mrs. S. L. H.

Salmon Croquettes.—Equal parts of canned salmon and Irish potatoes, mashed fine and seasoned with salt and a little cayenne. Add one egg, well beaten, make into balls, dip in egg and cracker crumbs and fry a delicate brown in very hot grease.—Mrs. J. J. O'C.

Waffles.—Rub one tablespoon of butter into one quart of flour, add half a teaspoon of salt, mix thoroughly, separate three eggs, beat the yolks, add to them 1½ pints of milk and then add the yolks and milk to the flour mixture. Beat for five minutes. Put two teaspoons of baking powder right in the center of the batter, fold it down, beat again and then stir in lightly the well-beaten whites of the three eggs. Pour the mixture in a small pitcher, grease the waffle iron with a brush dipped in lard, have the waffle iron very hot, pour in enough batter to cover the lower part of the iron and when brown turn the handle and bake on the other side. Grease the iron after each cake is turned out. Serve with butter and maple syrup.

Cream Cookies.—One egg, two cups of sugar, cinnamon, nutmeg, salt, two cups sour cream, thick; two teaspoonfuls soda, good measure; half teaspoonful of cream tartar, flour. Don't knead.

Baked Hamburg Steak.—Take one beaten egg, mix well with one pound fresh Hamburg steak. Add half cup of bread crumbs, butter size of a walnut, salt and pepper to season. Form into a roll two inches thick, and bake one-half hour. A tablespoonful of water should be placed in the baking dish and the meat basted occasionally until done. This is fine, either served hot or sliced cold for luncheon. One pound is enough for four persons.

FASHIONS BY MAY MANTON.

Our large Fashion Book—containing 92 pages illustrating over 700 of the season's latest styles, and devoting several pages to embroidery designs, will be sent to any address on receipt of 10 cents.



No. 7754—Cutaway coat with vest, 34 to 40 bust. With or without cuffs.
No. 7758—Cutaway coat, 34 to 42 bust. With or without vestee and tabs on back.
No. 7761—Semi-Princesse dress for misses and small women, 16 and 18 years. With three-piece skirt, with long or elbow sleeves, with or without tabs.
No. 7746—Two-piece skirt with overlapped draped portion, 22 to 30 waist. With high or natural waist line.
No. 7777—Skirt with tunic effect, 22 to 30 waist. With high or natural waist line.
The above patterns will be mailed to any address by the Fashion Department of the Michigan Farmer on receipt of 10 cents for each.

BOOK NOTICE.

"Co-operation in New England," by Prof. James Ford, Instructor in Social Ethics of Harvard University, with an introduction by Dr. Francis G. Peabody. In this volume, which is a number of the Russell Sage Foundation Publications, the author attempts to review the progress of co-operation in the New England states under two general sub-heads: Co-operative associations of working men and Co-operative associations of farmers, giving special attention to the Grange and general agricultural co-operation, co-operative sale of produce, co-operation of dairy industries, together with an interpretation and prospect. The volume contains 300 pages and will be sent postpaid upon receipt of \$1.50. The book is published by the Survey Associates, Incorporated, New York City.

Grange.

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

THE JUNE PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Song.
Roll-call responded to by each giving experience with a pleasant piece of work. Recitation, "When June gets here."
How to make some piece of home or school apparatus for play.
Do sugar beets increase soil fertility?
Song.
The most attractive part: 1. Of my township. 2. Of my county. 3. Of my state.
Pantomime or dialogue.

Suggestions for Second Meeting.

Song.
Roll-call responded to by each giving a favorite verse of poetry.
Reading, "The best will ever written."
Soil cultivation: 1. Why cultivate? 2. When cultivate? 3. How cultivate.
Song.
Stunts in tongue twisters.
Results of teaching agriculture in our schools this year, by an eighth grade pupil, a teacher, and school officer or parent.
Mock school meeting, conducted by the women.

WHAT IS TRUE CO-OPERATION?

The very air seems saturated with talk of co-operation. Farm papers are full of it. Agricultural meetings discuss it. The states and nation have sent special commissions abroad to still further agitate the subject.

We say, the air is full of co-operative moisture, and, we ask, when will it precipitate itself? This is a very pertinent and practical question and one that concerns us individually and collectively, for it devolves upon us to condense this vaporous co-operation into applied co-operation. We are the ones who must put some of these theories into practice—"you in your small corner and I in mine." If the overworked are relieved, we must help relieve. If the 35-cent dollar becomes the rightfully divided dollar, we must help in its rightful division.

It certainly rests heavily upon us of the Grange to seek out and make known existing cases of co-operative effort and to encourage more of them. Very simple instances sometimes will serve as seed among us for this purpose. For instance, let us tell abroad of the employees of a certain co-operative creamery who rigged up a barrel churn and attached it to the creamery machinery in such a way as to do their laundering with the surplus steam and power. From this grew the formation of a co-operative laundry association which built a neighborhood laundry, adjacent to their creamery and did away with "Blue Monday" and attendant backaches and "pick-up dinners" in more than 200 households. Or, again, my neighbor, Smith, keeps chickens and a horse and has a small field of alfalfa but no mowing machine. Smith's neighbor Brown has a machine but does not have a sufficient quantity of hay for his cows; so Smith allows Brown to cut Smith's hay and take what he wants of it and Brown leaves some of it and supplies Smith with milk.

In these simple, neighborly exchanges lie powerful seeds of co-operative possibilities. Their germs are in their spirit, but spirit here is ultimated in works. And now we come to the gist of the whole matter of co-operation. When we are truly ready—that is, willing—to co-operate we will co-operate; and to do so truly means that everyone taking part will desire that every other person in the enterprise have as square a deal as himself. Everyone must begin in this movement over against his own threshold. Every Grange, every Club and every other group must find its own point of contact with its own community's conditions and begin there to work together.

JENNIE BUELL.

AMONG THE LIVE GRANGES.

Marketing of Fruit was given consideration by Grand Traverse Grange at a recent meeting, the consensus of opinion being that more pains must be taken with the packing of fruit and that extra efforts must be made to get better returns. One grower stated that he proposes the coming season to build up a business with private customers and that he expects to get more than 35 cents out of each dollar paid by the ultimate consumer.

Another expressed it as his belief that it would be necessary for all the small growers to combine for marketing purposes in order that shipments might be made in carload lots. At the meeting to be held Saturday afternoon, May 31, the economic geography of the Grand Traverse region will be presented by means of lantern slides bearing typical farm and orchard scenes secured in this region.

Sisters Enjoy Social Side.—The sisters of Needmore Grange, of Livingston county, are making the most of the social side of Grange life by meeting regularly at the homes of members. Early in the present month they met with Mrs. Edith Rickerl where, after greetings and a social half hour, each lady was presented with three white paper napkins, provided with thread, needle, thimble and shears, and given 15 minutes to make a hat or bonnet. The creations of that quarter of an hour were wonderful to say the least. Mrs. Dolly Maxon was awarded highest honors for the most original production, her work being a perfect representation of the old-fashioned sunbonnet of our grandmothers' day. A drawing contest, calling forth much laughter, was next indulged in with honors equally shared by all. After a dainty and delicious supper the guests departed, adding another pleasant day to be remembered when turning the leaves of memory's sketch-book. The next meeting will be held at the home of Mrs. Maria Hale, in June.

A Surprise Program featured the last meeting of Coopersville Grange, the reading of scraps of information found in the bags of popcorn, which had been prepared and distributed by the sisters, holding the attention of all.

Church and Grange.—An Eaton Rapids minister, a few weeks ago, took for the theme of his Sunday morning discourse, "The best crop for Eaton county farms and how to raise it." The special invitation extended to the Grange and to farmers generally brought out a gratifying attendance.

COMING EVENTS.

Pomona Meetings.

Ingham Co., with Locke Grange, Wednesday, June 11.
Wayne Co., with West Road and Willow Granges, in Willow Grange hall, Friday, June 13.
Montcalm Co., with Langston Grange, Thursday, June 19.
Eaton Co., with Northwest Walton Grange, Saturday, June 21.

Farmers' Clubs

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—Jas. N. McBride, Burton.
Vice-President—C. B. Scully, Almont.
Secretary-Treasurer—Mrs. C. P. Johnson, Metamora.
Directors—C. P. Johnson, Metamora; H. W. Chamberlain, White Lake; Wm. T. Hill, Carson City; Jerry Spaulding, Belding; R. J. Robb, Mason; J. F. Remain, Flint.
Address all communications relative to the organization of new Clubs to Mrs. C. P. Johnson, Metamora, Mich.

Associational Motto:

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

Associational Sentiment:

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

CLUB DISCUSSIONS.

Farm vs. City Housekeeping.—Washington Center Farmers' Club met in regular session May 8, at the home of Mr. and Mrs. Frank Cook. In the absence of Pres. Long, Vice-President Mrs. Crowell called the meeting to order with a song. Minutes were read and miscellaneous business found a very cordial invitation to hold the annual picnic, in August, on the banks of Maple River, at the pleasant home of Mr. and Mrs. William Brown. It was to be considered until next meeting. The response to roll call was, "Name a Blessing." Instrumental music by Miss Harp was substituted with a song by the Club. Mrs. F. Cook read a very good poem, which was enjoyed. The question, "How much harder work is done by the housewife of the city than by the farmer's wife?" was led by Mrs. Frank Himlen, who thought the farmer's wife had by far the hardest work. Some others thought the same way, but Mrs. S. L. French thought she would not trade places with any city housewife, as there is so much extra work to be done by the city wife if she goes into society and her children attended school; that the farmer's wife did not have so much to do, and city life was also more nerve racking. Mr. Allen thought there was surely more peace and happiness in country homes so therefore the work could not be so hard. There were several other good talks on this subject, of which we cannot make mention. "Garden, poultry and flower hints," were thoroughly discussed by all. We then visited the chick-

en park, as Mr. Cook never allows his chickens to run at large, having decided it was more profitable and convenient to have a park large enough so that they could have good range with plenty of fresh running water. After returning to the house the Club members were served with ice cream and cake.—Reporter.

Discuss Agriculture and Education.—The last meeting of the Indianfield's Farmer's Club was held at the pleasant home of Mr. and Mrs. A. J. Patterson on May 15. This is one of the homes situated on what is known as "Harmony Hill." There was a large attendance, notwithstanding the busy season and its pressing work. The program consisted of papers and music. The first topic, "Michigan's Agricultural Opportunities," was handled in a very clever manner by Mrs. Mary Fournier. Mrs. Clara Miller read a paper, "Agriculture in Rural Schools." In part she said, where would it be taught if not in rural schools, where the boys, and girls, too, for that matter, live on farms. The soil is a wonderful thing in itself—to know what is lacking in the soil, and what should be used to increase the productiveness, and the value of seed tests, rotation of crops, etc. It has become necessary to teach our youths methods in getting larger and better results from the soil. A paper read by Mrs. Castle Taggett, "Agriculture and the safety of farming as a business." She said a business farmer is one who realizes a profit on his labor and investment, and keeps constantly improving his farm. Farming is essentially a family business in which all interested should take an active part. The topic, "Agriculture, the true source of National Prosperity," by Charles Pierce, was also very interesting and well read. He said: "In our own times the United States, after supplying the wants of its own large population, has exported upwards of five and one half billions of dollars worth of agricultural products, within a period of ten years. Nearly 2,000,000 new farms, containing over 3,000,000,000 acres of land were added to the agricultural domain of the United States between 1880 and 1900. The annual production of the United States is absolutely without a parallel in the history of the world." We would like to give the whole of the several papers, but space will not permit. Refreshments were served at the close of the meeting by Mrs. R. W. Black. This Club was organized in 1901, by Mr. and Mrs. I. N. Taggett, with 12 members. Now it is limited to 25 families. A committee is appointed to prepare a yearly program. The special features are a young folks' day, gentlemen's day, on which day the gentlemen serve the dinner, and a picnic in August. Meetings are held on the third Thursday of each month, except in August, when we have our picnic. We own our lap-boards and chairs, singing books, etc.—Margaret Arnold, Sec.

Want Club Song Book.—The Pittsford Farmers' Club met May 21 at the pleasant farm home of E. J. Haskins. The attendance was small, it being a very busy time in this section with farmers, but our meeting was instructive and entertaining and enjoyed by all present. The question box is a feature of our Club that is thoroughly enjoyed and proves interesting and instructive. It draws each member into the discussions and I would suggest that all Clubs try the question box, if they have not already done so. The reports from Farmers' Clubs is the first thing I look for in the Michigan Farmer. We would be so glad to hear from any Club that has a good singing book for Club work, if they would write to the secretary personally, or answer through the Michigan Farmer. We find it very difficult to find anything fitted to Club work.—Satie L. Calkins, Sec.

Economic Birds.—At a recent meeting of the Berlin and Almont Farmers' Club, Mrs. Warren Finch read a paper on the subject: "Should the farmer take care of the birds, and what birds?" Mrs. Finch began her excellent paper by saying: "If any farmer is present who never suffered any loss from cutworms, wireworms, white grubs, caterpillars or hessian fly, will he please say I." The conservative estimate of the annual loss in agricultural products in the United States from insects is eight hundred million dollars. That would keep 20,000,000 children in school a year. Nature's scheme has provided a strong force to protect the world's vegetation in the insectivorous birds. One experimenter fed a young robin 50 to 60 cutworms a day for 15 days. A watcher saw a mother come to her nest of four babes 103 times in six hours, making a round trip every 3½ minutes bringing cutworms, angle worms, grasshoppers, white grubs, beetles and larvae. A man would have to eat 80 lbs. of beef, drink six gallons of water in one day to equal in proportion the gastro-nomic performance of a young robin. There is only one robin in our northern states where there used to be 10. The same statement could be truthfully made of the woodpeckers, bobolinks, martins, pewees, wrens, larks and others. One way to protect them is to give them comfort and safety in their housekeeping by nailing tin cans or little boxes on the trees, providing drinking cups and bathing places, is time profitably spent. A barbed wire wrapped several times around a tree will keep prowling cats away from the nests, though the farmer can hardly be expected to do much for the robber of the corn field. The bluejay has the name of slaughtering the innocent young of other birds. When their good and bad actions are laid in the balance, the scale of justice inclines in their favor. But all will agree we should rid ourselves of the English sparrow. The sentence should be carried out by men, not children. Children should never be trained to shoot or poison birds, even if they are only English sparrows. Aside from the bad effect on the children they might mistake song sparrows, white throated sparrows, or even the phoebe for the English sparrows.



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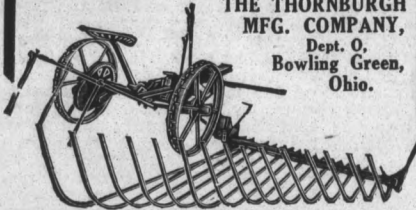
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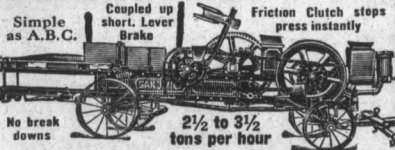
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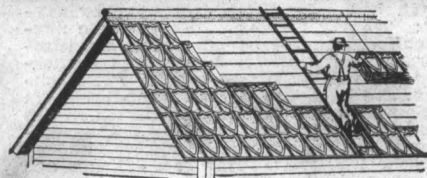
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