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THERE is perhaps no item in the proper up-keep of the farm home and equipment which is more often or generally neglected by the average farmer than is that of painting. At the same time there is probably no section of the country in which the farm buildings on the average farm are kept up as well as they are in Michigan, and particularly in the older agricultural counties of the state. Yet often this needed work of painting is too long delayed upon farm buildings and there is no year, and scarcely a month in any year, when there is not some little job of painting that should be attended to upon the farm, either on the exterior or interior of the buildings or the farm tools or equipment. It would be profitable to give this matter more consideration upon the average farm, not only from the standpoint of improved appearance but as well because of the more lasting and satisfactory service which will be gotten from both buildings and equipment if kept properly painted; for, while a profitable degree of satisfaction will result from the use of paint for decorative purposes, the great object in the use of paint is as a preservative covering for the surface painted.

To secure the greatest degree of benefit in this direction, and also from a decorative standpoint, it is essential that good paint be used and that it be properly applied. Hence the first consideration in preparing for this work is the kind of paint secured. This should, in the writer's opinion, depend largely upon who is applying it. If an experienced painter is employed it will be the best policy to let him look over the job and then take his advice as to the kind of paint to be purchased and whether ready mixed or in the form of the necessary ingredients.

Where the work is to be done by home labor, however, the case is somewhat different and for several reasons. A man who is inexperienced in the work of painting will not know just the proper ingredients and proportions of each to use in mixing the paint for any particular job. Then considerable time is required to get the paint properly mixed and unless enough is mixed at one time to do the whole job the inexperienced man will not get two batches of exactly the same consistency. When these factors are considered, as well as the waste of ingredients which may be left over, it will be more profitable for the man who is to do his own painting or have it done by inexperienced help, to purchase a good quality of ready mixed paint adapted to the particular use for which the paint is needed. If purchased from a reliable manufacturer or dealer of known reputation, who advertises his goods in reliable mediums, one will be certain in this way to get good material properly compounded at practically the same cost as the ingredients required for home mixing.

The paint can be purchased in quantity to suit the immediate demands, and for ordinary home use in the doing of small jobs of painting the ready mixed paint will be most satisfactory. Care should be taken when purchasing to explain just what the paint is intended for in order to get a paint especially adapted to the purpose. Also a good quality of paint should be purchased as this is the cheapest in the long run. The cost of the paint is a much smaller factor in the cost of painting than the cost of the labor to apply it and it requires just as much labor to apply a poor paint as a good paint.

Where the ingredients are purchased for the home mixing of the paint, just as great care should be taken to get materials of the first quality. In the mixing of paints there are two elements to be considered; the pigment used and the ve-

Painting on The Farm.

hicle for carrying it. The pigment used in white paint and paint of the lighter shades, is relatively expensive because of the few really good substances available for this use; the base used in the compounding of a good white paint, or a paint of light shade, is ordinarily a pigment of white lead. Zinc white and other pigments are sometimes added, according to the work to be done. In some colored paints cheap pigments may be used with satisfactory results.

But for all paints a good quality of linseed oil is the most desirable vehicle

linseed oil and from five to 10 per cent of a good drier. These ingredients will weigh about seven and three-quarters pounds per gallon. About six and one-quarter pounds of the vehicle and 15 pounds of pigment is required to make a gallon of good paint. When white lead is used alone and mixed by an inexperienced painter it will often "chalk off," while the zinc pigment will crack and peel, but where the paint contains both these pigments as well as a small quantity of so-called inert pigments it will produce a more serviceable paint than either one

isfactory job of painting with a poor brush. For the inexperienced painter the most generally useful brush will be a round one with about six-inch bristles, or an oval brush of similar length. These bristles are too long for proper working and from one to one and one-half inches next the handle or binding should be wound with cord to form what is termed a "bristle," and as the brush is worn down from use this can be removed, thus lengthening the service of the brush. Many painters prefer a broad, flat brush because the paint can be applied more rapidly, but inexperienced painters will not get the paint as evenly spread or as well brushed in with this kind of a brush.

There should also be a suitable scraper for scraping flaky paint from the surface to be painted, and a stiff brush to remove the dirt and dust, a well cleaned surface being a most important factor in a good job of painting. In order to do a good job of painting a brush must be in proper condition. A brush can be kept over night by putting same in water, but if not used for several days it should be washed out, preferably with turpentine. However, it can be fairly well, and much more cheaply, washed out with kerosene, then afterward washed with soap and warm water, after which it should be thoroughly shaken out and hung up to dry, then wrapped up to protect it from dust before being laid away for future use.

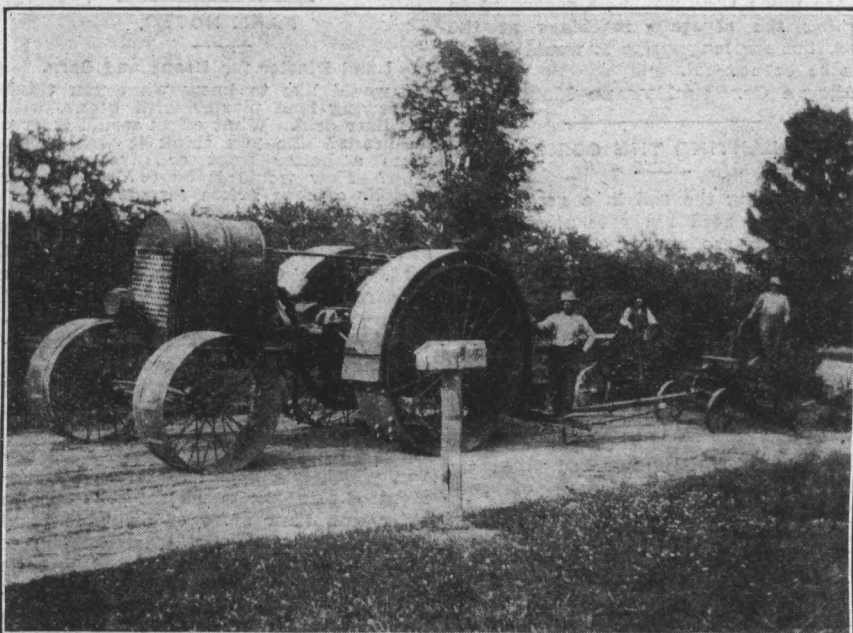
The surface to be painted should be properly prepared. All knots in new wood surfaces should be coated with shellac to prevent the pitch in the wood from destroying the paint. New surfaces should be primed over with a thin mixture of paint. A paint of ordinary consistency to which is added an equal volume of raw linseed oil will furnish good priming material. After the priming coat is applied all nail holes and other rough surfaces should be puttied in order that the finished job may be smooth. All surfaces to be painted should be perfectly dry, as the presence of moisture underneath the film of paint will cause serious trouble. Many painters use more drier than is advisable in order that they may put on a second coat quickly. It is preferable, however, to let at least a week elapse between coats. On new work three coats will be required for a first-class job, but on buildings which are kept well painted one coat applied at a time at reasonably frequent intervals is sufficient.

Red paints such as are used on barns are made of a cheap pigment and a good quality of oil. The bright red paints, such as are used on implements, are lead paints, however, but where the user does not care to bother with mixing the ingredients the manufactured ready mixed paints are available for practically every use, and if purchased with a view to their adaptation to the particular use for which they are intended they will give a good degree of satisfaction.

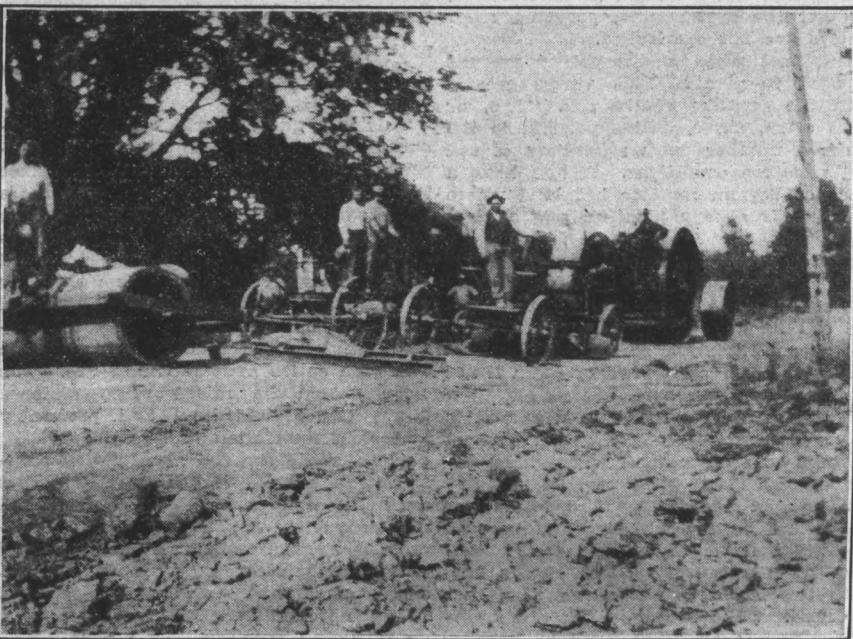
These are the essential factors to be considered in planning and doing the needed painting on the farm. Those who become interested in the work and desire more detailed information, including interior painting, the use of calcimines, etc., can obtain same from U. S. Bulletin No. 474.

ECONOMICAL LEVELING OF HIGHWAYS IN SPRING.

The accompanying illustrations show a very efficient method of straightening up the highways after the winter travel in muddy conditions has cut up the roads and left them badly rutted. The work was done by Bert Miller, Commissioner of Highway of Ganges township. Farmers were busy with their teams and it



Spring Leveling of the Highways as done in Ganges Township, Allegan County.



for carrying the pigment, to which is added varying proportions of driers, depending upon the character of the work to be done. Both pigments and oil may be of low quality or adulterated, but it is the part of wisdom to get a good brand of white lead and pure linseed oil. Even pure linseed oil becomes "fat," as its deteriorated condition is technically termed, when it has been kept in stock for some time instead of being sold out while in a comparatively fresh condition.

Paints of the best quality contain a vehicle consisting of 90 to 95 per cent of

alone, and it is for this reason that the manufacturers of prepared paint who have been experimenting for many years are able to turn out a product which is guaranteed to give satisfaction or which is backed up by the reputation of responsible or reputable manufacturers at approximately the same price which the ingredients of a good quality of home mixed paint would cost.

But there are other factors quite as important as the paint itself. It is essential that the paint be applied with a good brush. It is impossible to do a sat-



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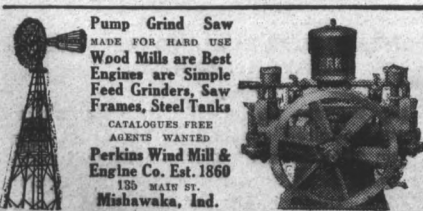
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was impossible to get horses to do the work at the time when it could be done most advantageously, so a gasoline tractor was employed for the purpose. It is a 30-horsepower machine and cost \$10 per day, including gasoline and a man to operate it. Two road graders were attached to the tractor direct, one drawing the earth up from each side of the road. Two King road drags were attached behind the graders to level off the dirt in the center, and these were followed by a heavy land roller. Two men, besides the one operating the tractor, one on each grader, were all the help required in running the entire outfit, where straight leveling was done; but where grading was undertaken another man with a team was needed to assist in turning at the ends of the turnpike. The tractor easily handled all of these tools and did full more work than the several machines would have done with horses. Three heavy teams of horses would hardly have cut as heavy a slice with the grader as was moved with the tractor. Working with horses it would have required at least 18 horses and 11 men to have drawn the machines that the grader handled, although perhaps the horses might have covered a little more ground. In going straight along the tractor drew the machines from eight to 10 miles in a day, supposedly of 10 hours. The expense for leveling off the surface of the roads should not have exceeded \$15 per day, not allowing for use or wear of graders, or not far from \$1.50 per mile. Considering the condition these roads were in when dry weather came on this was certainly a most reasonable expense. Such an outfit would perhaps not be very practicable for turnpiking short stretches of roads, as too much time would be consumed in turning the separate machines at the ends, but for long strips it would doubtless be economical.

Allegan Co. EDWARD HUTCHINS.

PLANTING THE CORN.

After having the soil in a good condition and the seed ready to place in the corn planter, the next problem is to determine how thick in the row or how many grains per hill should be dropped. It is a common practice to plant just a few more grains than it is desired should grow in order to allow for some failing to germinate. This practice I consider a poor one, especially in hill dropping, for in every case if this theory is carried out at least one more grain per hill must be dropped. If the seed bed is in the best of condition and seed of good vitality is used then all the seeds planted in a hill will germinate. If a hill happens to fall in a dry, cloddy place then there is not much chance of any of the grains germinating. I have always observed on the home farm and on the neighbors' farms that the person who gets his seed bed in the proper condition and then plants the right amount of seed, will get the best results, provided other factors are not overlooked.

But, just what is the proper amount of seed to plant? This varies greatly with the fertility of the soil. Two, or more often, three, grains per hill is the common number used, regardless of soil and moisture conditions. If you have a piece of bottom land or hill land where moisture is always plentiful and a yield of 60 to 80 bushels per acre may be expected then, by all means plant three grains per hill. On slightly poorer land two seeds to the hill are sufficient. Where the soil is poor in fertility and inclined to dry out rapidly a single stalk per hill may give the largest yield of grain if not the most feed per acre.

To be convinced that this is true it is only necessary to study a detailed report of some corn experiment where the number of stalks and yield per hill are given. Simply average up the yields per hill with a certain number of grains and you will see the results. It is very common for the average yields of the hills with two stalks to be greater than that for three, while the one stalk often produces nearly as much as two, usually about three-fourths as much.

In order that an ear of corn may be produced it is first necessary to have a stalk, the grain being formed last. If the young corn plant is crowded it is evident that about all it will do is to grow into a stalk, whereas, if a less number of plants were in the hill the fertility and moisture required to produce the extra stalks would go to make the one or two stalks larger and the extra plant food would form a heavier ear of corn. In other words, under the same conditions a soil will give up about a certain

amount of plant food and whether this food goes to form forage or grain lies almost wholly with the system of farming used.

The moisture supply also plays an important part in determining how thick to plant the corn, that is, where there is any possibility of its being deficient at any time during the season. This is a factor that seems to be overlooked to a greater extent than even fertility. Farmers as a class do not seem to understand the wet and dry soil conditions as well as they do the rich and poor. The propositions are exactly identical. Just as a soil gives up so much plant food so is it capable of giving up just a certain amount of moisture. Considering that a dust mulch is maintained then the chief source of loss of water from a soil during a hot summer day is by way of the leaves of the plants. If there are three stalks of corn to the hill rather than two then the loss of water from an acre is very much greater. Where drouth periods are common or where the soil loses water rapidly it is certainly necessary to plant less corn per acre. A field of corn may appear too thin for the average year but if the season happens to be a dry one I have often noticed that the yield is greater than on an adjoining field where the stalks are much thicker.

In conclusion, I would say, first prepare the seed bed well and obtain the best of seed, but at the same time take into consideration that the yield you may expect is directly dependent upon the number of plants per acre. In determining this you must know your soil both as regards fertility and capability of retaining moisture.

Indiana.

O. M. HAYES.

FARM NOTES.

Land Plaster for Beans and Corn.

I would like to know what you think of sowing land plaster with beans, with fertilizer drill. What effect would it have on beans? Do you think it would give them a better start or give a better crop? How would it be to drop plaster on hills of corn before corn is up?

Montcalm Co.

E. H.

Land plaster is not a fertilizer in the sense that it contains any available plant food. When the soil was comparatively new farmers very generally practiced sowing small amounts of plaster, particularly on clover seedings, with the result that it tended to release some of the unavailable plant food contained in the soil and converted it into an available form, especially potash, which had a beneficial effect upon some crops, notably upon clover, which is a liberal feeder on this element of plant food. As the soils became older and their store of available plant food smaller, however, plaster failed to produce the effect above noted and its use has been practically discontinued. For the reasons above noted it would not, in the writer's opinion, be profitable to use it either on beans or corn, as suggested in this inquiry.

Concrete as a Material for Granary Floor.

I am building a granary; would like to put a concrete floor in it. What is your opinion in regard to the grain spoiling on the cement floor?

Gladwin Co.

J. E. W.

This is a question which has been discussed at some length through the columns of the Michigan Farmer in former years. The consensus of opinion of those who have used concrete as a material for granary floors is that if properly laid on a well drained foundation and not used until thoroughly dry there is no danger of grain spoiling from moisture absorbed through the floor. In fact, entire elevators are now manufactured of concrete and give entire satisfaction in use. The floor should be raised some distance above the ground level and preferably laid on a foundation of coarse gravel or cinders, while the soil about the foundation wall should be tile drained if not naturally well drained. If this method of construction is followed and the concrete is allowed to become firmly set and well dried before using we do not believe any damage would result to grain stored in same from this cause.

Planting Treated Seed Corn.

After seed corn is treated and limed to protect it from predatory birds and animals can it be successfully planted with a corn planter? I have never planted it except with a hoe but think it could be planted with a hand-planter.

Van Buren Co.

O. C.

There is no doubt that seed corn so treated would not work as satisfactorily in a corn planter as in its natural condition. We have had no experience with attempting to plant same through a corn planter. Perhaps some Michigan Farmer reader can give personal experience upon this point.

MILLET ON LOW LAND FOLLOWED BY CLOVER.

Three years ago I bought a 30-acre field about two miles from our home farm, of rather low land. We fitted six acres for wheat. The wheat did not show up very good so we plowed it under in the spring of 1912 and planted corn. Last summer was very wet and the corn only yielded some fodder. The land is very hard to keep clean, the wild grasses keep coming up. My neighbors have raised some very good crops of corn in dry years. I would like to seed millet in the six-acre field besides breaking up about six or eight more for corn. What kind of millet would you recommend? How much seed per acre? What time should it be planted? Is it cured like other hay? Is millet very hard on land? I would like to seed to clover the next spring after the millet. I realize that the farm should be tile drained but I can't get around to that for a couple of years. Would you recommend any other crop in preference to millet?

Van Buren Co.

SUBSCRIBER.

It is certainly pretty risky trying to farm on this wet land before tilling. In a very dry year Subscriber says that neighbors on the same kind of land raise fair crops of corn, but he had a wheat failure and a corn failure which would pay for ditching the land, and that is the first step in the improvement of this land. There isn't much use in putting it off. The risk is so great in trying to raise crops on land that needs tiling as bad as this does that one can almost advise letting the land go bare, not trying to raise any crops on it at all unless he is able to go to work and tile it and get it in shape. It isn't profitable to put in a crop and have it all drowned out, or have it do next to nothing because there is too much moisture in the soil, and the first thing to do with land that is naturally too wet is to tile it. You can't get good results unless you do. Probably millet is as good a thing as you can raise on this land because you don't have to sow it until along in June, say the 20th of June. I have sown millet as late as the first of July and got a good crop of millet. Such season of the year, of course, the ground will be dry if it is dry at any time, and since millet is a quick growing crop it will come off before the land gets wet again by fall rains. I would prefer to sow Hungarian grass. This is a millet and it makes the best quality of hay. Sow a half bushel of seed to the acre. Many people would think that this would be too thick, but it makes a nicer quality of hay and finer, if it is sown thick, and by sowing it thick you smother out weeds and have a better quality. This grass should be cut when it is in full growth before the seed forms and cure it as you would any hay. Mow it in the morning, rake it in the afternoon, and cock it up and let it cure in the cock. If you leave it over night after it is partially made in a swath and it gets wet with the dew it will bleach out and become dry and hard and unpalatable.

I would not think of sowing this wet land to clover. It will practically be wasting your time and your seed. Clover will not grow on cold wet land. It must be tiled. The probability is that this land is acid, that it doesn't contain enough lime. If you would drain it then by draining the water off at the bottom some of the acidity would wash out, and it would help to sweeten it, but in all probability this low wet land is deficient in lime and a good application would pay. It certainly ought to be taken into consideration before trying to seed to clover. If you want to seed this land and make a meadow out of it I would seed it to timothy and red-top rather than clover. A little alsike clover might be mixed with the timothy because this will grow on land much wetter than red clover will. It is too much of a speculation trying to grow corn on this kind of land. Unless you have an extremely dry season you can't expect to get a crop. After you have put all of your work into the crop it will be ruined by too much moisture.

COLON C. LILLIE.

ALFALFA.

While it is true that the best crop on the farm is boys and girls, the next best crop is alfalfa. If you want valuable information as to the best methods of growing it, let us send you such information and sample of Seed free of charge. We make a specialty of high grade hardy Northern Grown Seed, sure to grow and thrive in Michigan, if a little well directed care is exercised. Our seed is tested as to purity and germination and has been found the best obtainable. Write today.

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(Adv.) Grand Rapids, Mich.

Horticulture.

SUCCESSFUL METHOD OF HANDLING STRAWBERRIES.

No early fruit is more popular than the strawberry and it is easily grown, even by any novice, on a great variety of soils. Of the many varieties there are those suited to soil and climate requirements of all states. Here in this section of the state, the Wilson, Warfield, Brandywine, Sharpless, Glen Mary and many more old standard sorts do remarkably well. Of the more recent varieties, the Corsican does best with me. This berry requires a deep rich soil and high culture for best results and that is what we aim to give it. It is a mammoth sized berry, good all the way through, and of the very best quality, requires room to color up well, stands local shipment nicely and where once introduced customers are crazy for it afterwards. It is not a prolific plant-maker with me, but after all, makes sufficient plants for the matted row.

Strawberries are cultured in many ways. I make rows six feet between and plants two feet apart when setting in the row, and as I set beds only during early spring this intervening space between rows is invariably drilled to black-seed onions in rows about 14 inches apart for easy tending, with a hand cultivator. In tending the one crop, both crops are kept clean and the strawberries respond to clean and frequent cultivation as well as the onions do. Being spaced six feet the berries run and set just about right to leave a space in the center to pick from and by the time the vines throw out runners the onions are bottoming, which keeps them, to a great extent, from setting too thickly. We have the whole piece free of weeds by this time and cultivation ceases, except for pulling of stray weeds which may come on later. In the fall the bulbs are pulled and topped regardless of the young plants near them, which I find, after all, delight in having the soil loosened. Then the onion tops, usually rank, are distributed as a partial mulch over the field evenly. I thus get big returns from onions the first season from my new berry field, besides giving the plants clean and frequent culture. Bear in mind, this is rich soil and the season following the onion crop is always our heaviest berry production for the bed. We set new beds each spring and never allow more than two fruitings in succession from one setting of plants.

Gladwin Co. G. A. RANDALL.

THE OAKLAND COUNTY HORTICULTURAL SOCIETY.

The May meeting of the Oakland County Horticultural Society was held at E. J. Van Duyn's fruit farm near Novi, on Saturday, May 3. The attendance was very good, considering that it is a busy time of the year with fruit men.

The forenoon was taken up largely with the business of the society, such as arranging the programs for subsequent meetings and planning for special work in the interest of the members of the society. Plans have been made to use a cut of the Steele Red apple on the stationery used by the members of the organization, as Oakland and surrounding counties are considered the home of that best of all winter apples that has characteristics distinctively its own. In no other portion of the country does the Steele Red seem to do as well, or make such generous returns for the labor bestowed, as in Oakland county and adjoining districts.

Mr. W. D. Flint gave an excellent talk on "Orchard Cultivation." He emphasized the importance of thorough cultivation when undertaken at all. Cultivation promotes the growth of the trees, subdues weeds, helps to retain moisture, consequently increases the size of the apples, breaks up the nesting places where injurious insects live and increase, and buries diseased leaves of the former season which helps to control some of the fungus diseases.

If he were to plan to set a new orchard, Mr. Flint said he would first enrich the ground with barnyard manure, and then subdue it by thorough cultivation before setting the trees. Cultivate the fore part of the season to promote the growth of the young trees and use a cover crop to check the growth during

the latter part of the season and furnish a mulch to protect the roots during the winter. Where commercial fertilizers are used, if the trees are getting a rapid growth, leave out the nitrogen and apply the potash and phosphoric acid. One's good sense and judgment should be his guide.

The entire afternoon was given over to Prof. O. K. White, of the M. A. C., who gave a lengthy lecture on insect pests and fungus diseases with which the orchardist has to contend. The lecture was illustrated with drawings on canvass of how the diseases look under a compound microscope.

The different kinds of sprays were described and instructions given for the application of the same. Reasons were given why different kinds of spray mixtures are used, and the effects of different kinds of poisons. Spraying with poisons serves a double purpose; it kills the insects and keeps the foliage healthy, a matter of great importance, as the leaves are the lungs and stomach of the trees.

Spray when the tree is dormant with a strong solution of lime and sulphur for San Jose scale; just before the blossoms open with a weak solution for scab; just after the pollen has fallen with poison added to the solution for codling moth. Arsenate of lead is considered the best and safest poison to use. Use three pounds of arsenate of lead to 50 gallons of the solution for codling moth. If there are canker worms use five pounds of the arsenate of lead to 50 gallons of the solution. Spray every two or three weeks with the weak solution and poison to keep the scab under control and maintain a healthy foliage. Spraying for fungus diseases is a preventative, not a cure. Spray about the first of August for the second brood of the codling moth. Emphasis was placed on the importance of driving the poisoned spray into the calix, or blossom end of the apples, when spraying just after the pollen has fallen, as that is the place where the little worms from the eggs of the codling moth usually attack the fruit.

The matter of the importance of thinning the fruit on the trees was taken up. It is the only method by which a uniform and good quality of fruit can be secured. As to the proper time to thin there seemed to be a difference of opinion. Some prefer to wait until after nature has done her work in what is called the June drop. Then begin thinning on the most of the fall and early winter varieties until the last.

Mention was made that consumers in the city of Detroit complain that they are unable to buy first-class fruit from their dealers. The fault is not with the growers who would be glad to furnish good fruit to consumers at a fair price, but the street hawkers and dealers buy inferior fruit because they can get it cheap, and then sell it to consumers at a good price, thereby making a large profit. The law should define what is number one and number two fruit, and it should be made a penal offense for a dealer to sell number two or inferior fruit as number one fruit. Too much cheating is practiced on the part of the dealers for the good of the fruit growers and consumers.

These monthly meetings are doing much to educate the fruit growers and should be attended by more of them. Too many wait to learn by example from their more enterprising neighbors, which means that they make progress slowly.

Wayne Co

N. A. CLAPP.

GOOD SEED CORN.

While the selection plays a most important part, the yield per acre depends upon every hill doing its part. This can only be accomplished by planting seed that is of high vitality. Corn selected for seed purposes should be tested and proved to be good. The better the vitality, the more bushels of corn to the acre. Our Fire Dried Corn which has been selected especially for seed purposes, is of high vitality, some of it showing a test of 96 to 98 per cent strong germination. Ask for samples and prices, mailed free upon request.

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The Michigan Orchard Ladder

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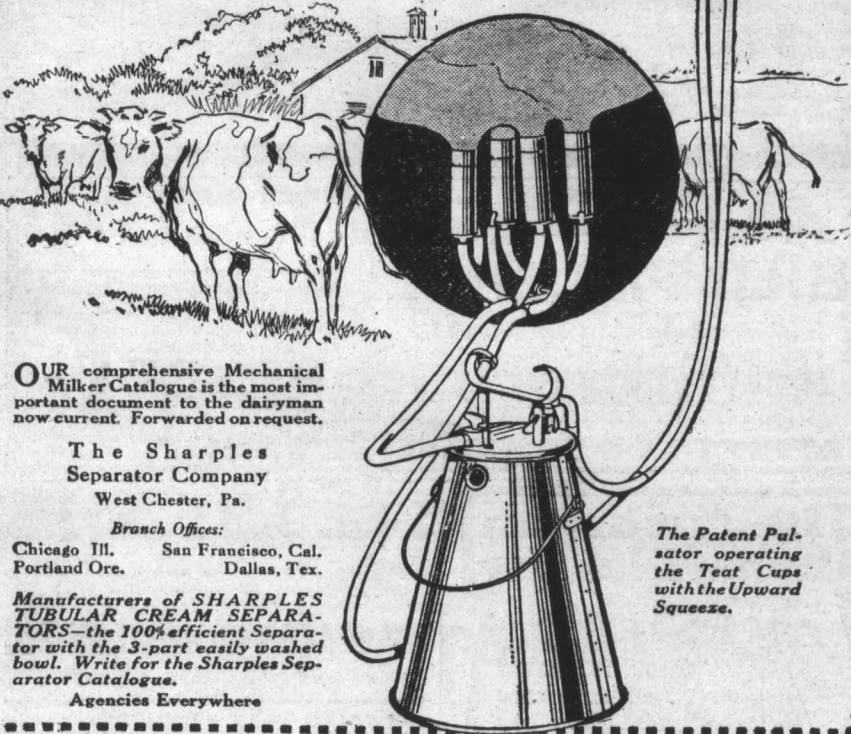
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BARN VENTILATION.

I intend to build basement for a barn 36x46 ft., with end entrance, having horse stalls on one side and cows on the other with feeding alley in center. I want to install a ventilating system in walls. My wall will be 2 1/2 or 3 ft. above the ground, 16 in. thick. I think by using 3-in. tile and elbows, and put elbow flush to outside, just low enough to take one length of straight tile, then elbow in about 4 in. below overlays, this would not be a direct intake, and it would give room to use all I want, by using sides only for intakes. I have only 40 acres so will keep two or three horses, and from two to 10 cows. Now, how many intakes as described, do I want? Do you think the one end-outlet in center about 6x12 in. inside measurement, enough or not? Is it best to run this outlet shaft through roof or not? It will spoil the looks of my roof to build a small roof over it. Will you please outline a plan for me, not too expensive? Will have 10 or 12 two-sash windows in the wall. I want plenty of light.

Osceola Co.

L. V.

I think your idea of ventilation is correct, but I'll tell you frankly that I don't like the idea of having the stable down in the ground so far. If your wall projects only two or three feet above the ground that means that your stable will be down into the ground some four or five feet. I don't like this kind of a stable. I would build the stable part entirely above the ground. Even the floor of the stable ought to be high enough above the ground so that no moisture from the outside could ever run into the stable. This makes a healthier and better stable. There is nothing gained so far as expense is concerned, when you figure the extra cost of excavation in putting the stable down into the ground. It will cost no more to build an approach to the first story of your barn than it will to make this excavation for the stable, and you will have a better barn for animals to live in than if you put it down into the ground four or five feet. If you have it farther above the ground you can put in your pure air intakes in the same way, by the use of tile, having them open at the bottom on the outside and up next to the ceiling on the inside. Now there ought to be more of these intakes than you really need and ought to be distributed all around the barn so that when the wind blows hard in one direction you can stop up the intakes on that side and still have enough pure air intakes to furnish all the pure air needed for your stock. Otherwise, the force of the wind will drive so much cold air into the stable that it will cool it off too much in real cold weather.

Your ventilating shaft ought to be at least a foot square. I would make it a foot and a half square. I don't believe that would be any too large for a barn that was 36x46, and it certainly ought to project up through the roof. Of course, after you have got it up to the plate of the barn then you could make a bend in it and run it up the roof and out the cupola, which would answer very well, although you won't get as good circulation, there will be so much friction in this joint, as you would if you run up through the roof and as high as the peak of the barn, or higher. What do you care about the looks? The all-important thing is getting a sanitary stable, a stable in which animals will do well. After you get a ventilating shaft and see it on the barn once you wouldn't think the barn would look right without it. You could make the same criticism with the chimney on the house and say you didn't like the looks of it, but really a house don't look right without some kind of a chimney on it.

I think you will like your barn better after you get it built if you have the feeding alleys on the outside and the broad alley between the cows so that you can drive through and load the manure directly on trucks or a manure spreader. You certainly ought to investigate this proposition carefully before you arrange the barn with the feeding alley in the center.

BUTTER AND CHEESE SCORING CONTESTS TO BE RESUMED.

There will be four educational scorings conducted for the benefit of Michigan butter and cheese makers by the Dairy and Food Department this summer. The first will be held during May and the last

In connection with the state fair in September. Blanks, rules and shipping instructions are being mailed; should any fall to receive those sent address the department at Lansing with request for more. A diploma of merit will be issued to all who have butter or cheese scoring 90 points or over. The department is anxious for the co-operation of all butter and cheese makers of the state.

DOES SILAGE SHORTEN THE LIVES OF COWS?

Does silage shorten the life of the cow? I have heard it advocated that it did. Mason Co. A. N. F.

Again, I cannot conceive how a man would ask this question, living in the state of Michigan, with silos in almost every township in the state. Silage absolutely is not injurious to cows or any other stock to which it is fed. I have fed cows, sheep and horses silage for years, and it is a healthful food. It does not shorten their lives, but rather tends to prolong them, because it is a succulent food fed in connection with other dry feed, always tends to better digestion and better assimilation and a more certainly is reasonable to suppose that the thousands of farmers who have used and are using silage have learned its merits, and if there existed the slightest fault every wide-awake man would know and publish it.

HANDLING THE DAIRY CALF.

The effort to secure a more efficient type of dairy cow has centered attention upon the dairy calf, and commands that every reasonable condition be provided that will serve to develop the promising calf into an adult of all-around dairy quality. Thus it is highly important that the calf have continuous growth, for should it be required to pass through some hardships that impair development, to any degree, it is more than likely that when the animal comes to be a dairy producer the results of neglect will be evident. The calf should not only be surrounded so as to provide this continuous growth, but such an environment is needed as will give it a rugged constitution and proper disposition. That these conditions are to a large degree within the possibilities of the dairyman to provide, is apparent to careful students of the dairy business.

There are differences of opinion as to the best time to remove the young calf from its mother. Some argue from the standpoint of labor while others look to the interests of the animal. Because it is easier to teach the calf to drink from the pail before it has been allowed to suck, many would take it away immediately. Others more patient in this regard and being willing to forego some inconvenience in teaching the calf to take milk from the pail, leave it with its mother for from one to three days. These latter men are aware of the importance of the calf's securing the first milk, or colostrum, from its mother. This is a natural provision for purging the digestive system of the young animal and preparing it for receiving other nourishment. Since the best dairymen follow the latter method it seems wise for the novice to pattern after them.

One of the disagreeable duties on a dairy farm is teaching the calves to drink. Yet it is a peculiar fact that some men are far more successful in this work than are others. Whether it is because their methods are peculiar is a question. Nevertheless, it appears that those who exercise patience succeed best—this quality being an important one in the handling of the dairy cow from her birth to the end of her career.

Nature does not develop in the calf the instinct for drinking from a pail. It is natural for the little animal to lift its nose high in the air and bunt, two qualities not easily reconciled to the practice of taking milk from a pail. The trainer must, therefore, overcome these two tendencies by getting the calf to hold its nose down into the bucket and to hold the bucket so as to insure the milk not being wasted. The writer has had the best success in getting the calf to incline its head downward by holding the hand under the lower jaw with a finger near the calf's lips. This will cause him to incline his head in the proper direction in an attempt to get hold of the finger. In so doing his head can be readily directed into the bucket. Where the finger is placed over the nose of the calf, after the usual manner, it becomes necessary to force his head downward by main

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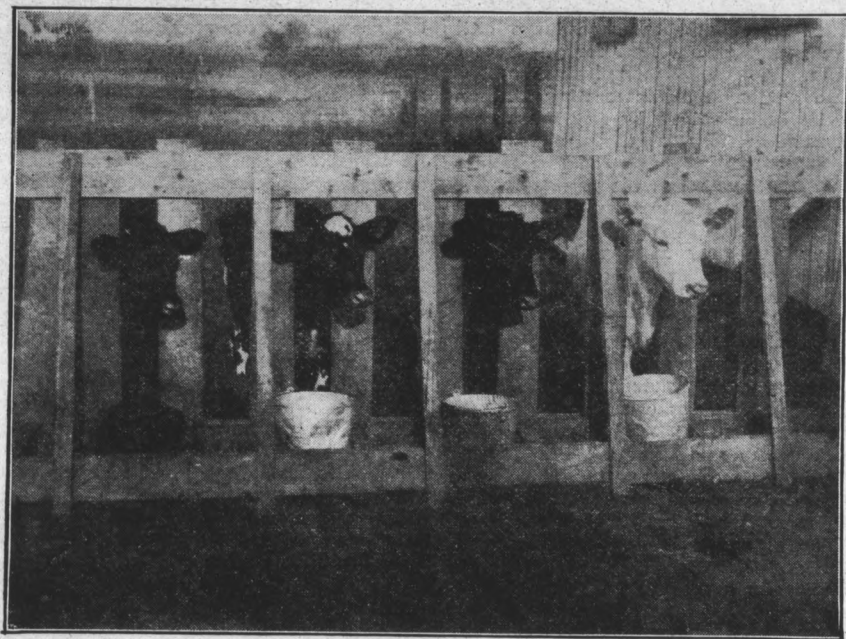
strength, which is not an easy task, especially should the calf be a strong, vigorous individual. As noted above, however, any method tried will demand that the instructor be patient and as kind as conditions will allow.

To protect the calf against contracting scours and allied alimentary troubles, clean utensils should be used in feeding and clean quarters be provided for restraining the youngsters. Frequently calves are fed from a wooden trough. While such a receptacle may be used without apparent harm, in the event that the sun shines upon it constantly and thereby renovating it after each meal, yet the chances are nine out of ten that it will soon become sour, get in a filthy condition and be the source of infection for the above mentioned troubles. Wooden pails are likewise objectionable. Strong, galvanized pails make serviceable and sanitary receptacles for feeding. They may, however, cause trouble unless they are cleaned every day. The stables, too, should be kept free from filthy manures as is too frequently the condition on most ordinary farms. Clean straw should be provided where necessary and some

out suddenly, but a small quantity of skim-milk or sour milk should first be introduced and then the amount gradually increased until after several days when the full amount of the substituted materials is fed. This permits the digestive organs to accommodate themselves to the change and will obviate any inconvenience to the young animal. A similar precaution should be exercised as to the temperature of the milk, not to turn suddenly from warm to cold feeding.

A few other essentials should be mentioned. Fresh air, sunshine and exercise need to be looked after and provided for. Salt supplied regularly effects similar results upon the calf that it does on adult animals. A piece of sod thrown into the pen, if the calf is kept inside, will be enjoyed. When flies are bad give it a cool dark place to lie in during the heat of the day, and a spray with some fly repellent will also relieve from the annoyance of these pests.

Where many calves are raised stanchions become indispensable. The illustration on this page illustrates how these may be made and shows the position of the buckets used in feeding the calves.



Feeding Calves Becomes a Pleasure when Stanchions Are Used.

disinfectant, like lime, should occasionally be scattered about the premises.

If milk is fed only when in the right condition, the calf will be well insured against being stunted. This means, first, that the feed should be of the right temperature, which is somewhere around 90 degrees Fahrenheit. When the temperature gets below 70 degrees it is not safe to feed it to the young animal. A second condition is with regard to the acidity of the milk. When the calves are young they should not be fed sour milk. Sweet milk ought to be continued for at least three weeks, and better until the calf is weaned. In feeding separator milk remove the froth before offering it to the calf, since it occasionally causes colic.

When the calf is about four weeks old it should be fed a little grain and hay. The rule usually followed by dairymen is to start feeding these feeds when they change from whole milk to skim-milk. A small handful of grain dropped in the bottom of a bucket after the milk is fed will, after a few days, lead the calf to eat it. Ground oats or linseed meal may be used for this purpose. Unless in a good pasture the calf should also be given access to some bright clover hay, which it will early learn to eat.

The quantity of feed given the calf is a matter too frequently disregarded and often leads to trouble. The amounts required vary with the individual, but ordinarily from five to seven quarts of milk will be needed every day until the calf is about three weeks old, after which the quantity should be increased to from seven to nine quarts. If possible, continue feeding milk till the young animal is around six months old. When the change is made to skim-milk a temptation to feed liberally shows itself, but this should not be indulged in as most calves will drink more than is good for them if allowed to do so. At six weeks of age the average calf should have about a half pound of mixed grain per day and at four months of age it should consume about two quarts of mixed ground grains per day.

One of the important matters to watch in the handling of the calf is changing or introducing feeds. When substituting skim-milk for whole milk or sour milk for sweet milk it should not be carried

The use of stanchions prevents the objectionable habit of the calves sucking each other, a practice which occasionally is highly detrimental to the health of the individual animals. The stanchions also decrease the amount of labor necessary to care for the calves, in that one man feeds a dozen as easily with the stanchions as he does one without. By the use of pails each calf is given its own allotment of milk, which does away with the objection of feeding in a trough where the calves that drink rapidly get more than they should have, while the more modest drinkers are deprived of their just share.

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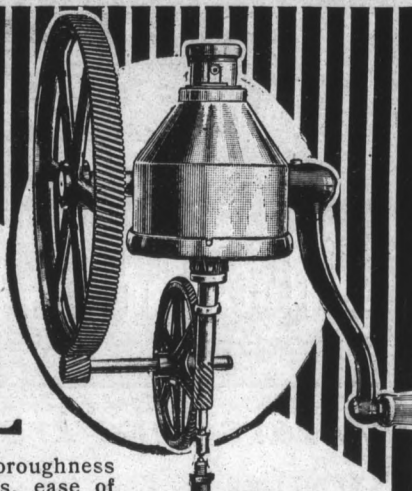
I was very much interested in the article in your paper of May 3 from J. A. Kaiser, Hillsdale county, entitled, "Growing Interest in Dairying."

Mr. Kaiser does not seem to get at the key to the situation in dairying at Litchfield. The Litchfield creamery has been running for 12 to 15 years but the farmers in that vicinity made dairying a side issue. Not until the Litchfield Jersey Breeders' Association was organized did all the farmers take an interest in dairying. From the organization of this association has come better dairy cows, better methods of feeding, better methods of caring for the cows. Also, better methods of handling the product from their herds, viz., the organization of the Litchfield Co-operative Creamery. The whole proposition summed up is this: Here is a community of intelligent young men, well organized and working for the betterment of their business and all working together. It is not by chance that one receives \$160 per month for butter-fat from 11 Jerseys. It is by hard work and study and the use of good business ability, in selecting, breeding, care and feeding the cows that bring this amount, also by getting all the product is worth before it goes to the consumer. That means thorough organization. The Litchfield dairymen are organized and are all working together. "Go thou and do likewise."

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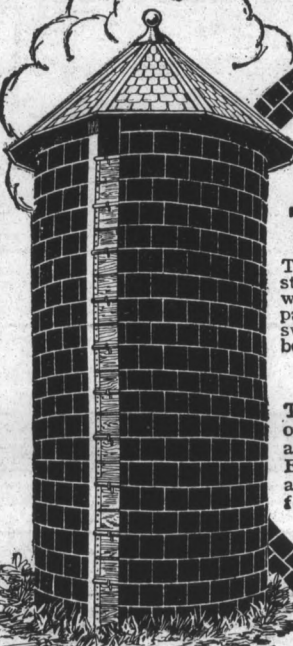
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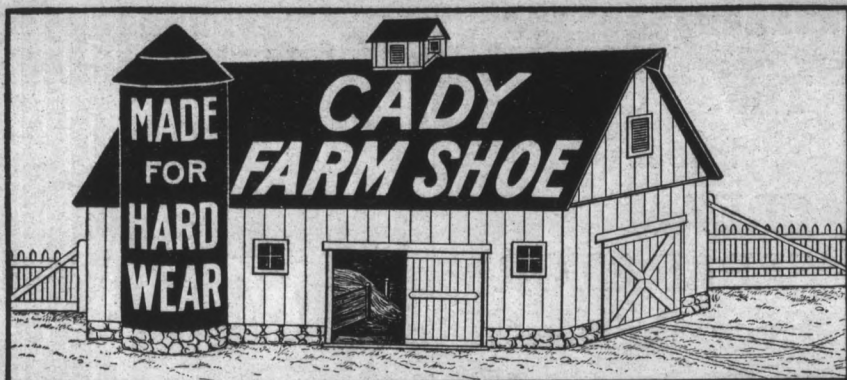
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GUINEAS FOR PLEASURE AND PROFIT.

There seems to be a good demand for guineas in nearly all of the large markets, and this demand is rapidly increasing, as the excellent qualities of these birds become known. Those who have learned to appreciate the guinea, as a table fowl, are not slow in expressing surprise at the fact that this bird is not more extensively raised.

A plump young guinea, broiled, baked or fried, is delicious to say the least, while an older fowl may be cooked by any recipe devised for the cooking of chickens and the result will be as good, if not superior. Those who relish the wild, gamy flavor, consider the guinea fowl equal to our native pheasant. For this reason, the guinea makes a good substitute for the wild game birds which are so rapidly becoming extinct. Some of the hotels and cafes in large cities serve young guinea fowl for pheasant or grouse.

The guinea is an interesting bird and can be easily raised by any person who can raise turkeys, as they require about the same kind of care. A few guineas should be kept about the premises, if for no other reason than that they are useful as "watch-dogs." The high, shrill notes which they utter will quickly put to flight any hawk or crow on mischief bent; while after night, no prowling animal or person can approach a house where guineas are kept without starting a chorus of discordant cries. Their sense of hearing is marvelous.

The two varieties usually raised in this country are the White African and the Pearl. They are about the same in size and shape, but quite different in other ways. In color the Pearl guinea is dark with small white spots, while the White African is pure white with bright yellow beak and shanks. The white guineas present the most attractive appearance when dressed for market, because the small pin-feathers do not show. I used to raise Pearl guineas but found they were very difficult to handle. During the laying season they would "steal" their nests some distance from the buildings (usually in a meadow) and before they could be located they would sometimes have such a nestful of eggs that they would desert it. This happens when several guinea hens lay in the same nest. They dig their nests out so deep that the eggs are sometimes several layers deep. If they sit on such a nest of eggs, as they will sometimes do, the result can be imagined.

They resent intrusion, and if their nest is approached while they are near they will leave it and make a new one some distance away. If they leave it of their own accord, that is, if the eggs get too numerous, they will usually begin another nest close by. If the nest can be found while the eggs are still few in number, they should be removed daily with a large spoon and replaced with nest-eggs. Or, better still, to be on the safe side use no artificial eggs but remove all but a few, every other day, and if they are wanted for hatching purposes be sure that the fresh ones are removed each time.

Guinea eggs are as good as hen eggs for table purposes, but are much smaller. They are too small for market purposes. All of the guinea's eggs are laid during the summer months. Or, rather, to be more accurate the usual laying season is from about the first of May until the latter part of August. This will vary a little at times, however, depending more or less upon the climate and season.

Having disposed of the Pearl guineas, some years ago, I started with the White African. They are much easier to handle because they are more domestic in habit. They stay with the chickens a great deal, even laying their eggs in the hens' nests. As a rule, a White African guinea hen will only "steal" her nest before beginning the last laying in a season, and then it is apt to be only a few rods from the house and therefore easy to locate. They can often be found easily, just by listening for the peculiar sound of their voices, while they are still on or near the nest. All guineas "cackle" alike.

White African guineas bring higher prices in large markets than others, for the reason stated above. It would seem that this should induce anyone to keep

the White instead of the Pearl, but for some reason the latter variety seems to be most extensively raised in this part of the country. A flock of White guineas can be easily kept almost anywhere without interfering with other poultry, and there is profit, as well as pleasure, in it. Our market facilities are not the best, here, and yet I have found the guinea to be a profitable fowl.

The guinea is a great bug catcher, a large part of their summer diet consisting of insects. They will devour injurious worms and beetles in a garden, and they do not scratch, as a rule. Their feed costs very little during the summer months, if they have a good range. If there is an orchard or pasture near by the guineas will stay there the greater part of the time. They require some shade in summer, and some protection from hawks. A field where there is a natural growth, such as small bushes or tall grass, makes a very good range during the summer and fall. However, it is not often that White guineas wander far from home. Such a range is more essential to the Pearl variety, although the White African will wander quite as far as a Leghorn hen, which is sometimes a surprising distance.

As stated above, White guineas are less wild than the Pearl, and will lay their eggs in hens' nests. But all guineas are "bossy," and for this reason it is best to house them by themselves especially in winter when they have to be confined. Guinea cannot endure much cold. If they are let alone and not confined in a house, during a blizzard, they will fly onto a tree or roof and stay there until they die of cold and hunger. The guinea is a native of warm climates and therefore needs good protection from the cold. Any poultry house that is sufficiently warm and comfortable for hens will answer for guineas. But it must be above freezing to be comfortable.

(Concluded next week.)

Ohio. ANNA W. GALLIGHER.

SEED CLOVER GRATIS.

Such an announcement in the advertising columns of any paper would either lead to a general rush for the seed or a denouncement of the whole thing as a fake. And yet good seed may be obtained for nothing from a reliable firm, if we only go after it in the right way. All admit this; and yet with the high prices that have prevailed for the past season many have striven to solve the problem indirectly in some other way than seeding as heavily as heretofore.

It is well known that bees and clover are mutual factors of gain, the insects, through their cross-fertilization, greatly increasing the yield of seed, and at the same time collecting much of the choicest nectar. Last season one farmer in Pennsylvania made a record which we believe to be the greatest ever recorded outside of the southern apiaries, where work is continued every month in the year. He took 127 pounds of the best alsike honey from a single swarm of bees, and later an even 100 pounds of buckwheat, leaving quite a quantity in unfinished sections to piece out the honey in the lower frames, which usually keeps the swarm over winter. This alone paid for the seeding of a few acres near the hive to timothy and alsike mixed, and the yield of hay was clear gain, proving the truth of the claim in our title.

But to do this he commenced feeding very early, thus stimulating to brood rearing, and had a strong swarm ready for the first fruit blossoms. Good ventilation and an abundance of room, with more supers added as the section boxes seemed crowded, overcame the tendency to swarm, while the clover field but a few rods away kept the workers continually busy. By gradually increasing the acreage of clover, supplementing with a good field of buckwheat, a single farm of moderate size would carry an apiary large enough to yield a goodly profit; this would at the same time provide for keeping up the forage crops of the farm and building it up in fertility, as nothing can do better than the legumes. In a region where alfalfa can be grown, the gain through the bees may be still further increased. And bear in mind the fact that everything the bees garner is that much extra.

Pennsylvania. BESSIE L. PUTNAM.

Live Stock.

WHEN THE PIGS ARE WEANED.

The weaning period is a critical one in the young pig's life. Some farmers wean their pigs entirely too young. A pig is not ready to depend altogether on feed from the trough before it is at least ten weeks old, although it may seem previous to that time that it is not getting much sustenance from its mother. But that little helps wonderfully, therefore the mothers should be so fed that they will keep up a good flow of milk until the pigs are old enough to depend fully upon themselves. Pigs that have learned to eat freely can safely be weaned earlier than those that have never been given a feeding pen of their own. In all cases circumstances will have to govern to a great extent the age at which the pigs are weaned, but the mistake should not be made of weaning them too soon. Some farmers let them wean themselves, but if the sows are to raise two litters a year this method of weaning will not do for the sows must be bred at a certain time. Where the litters are large the pigs are not so large in size at a certain age as when the litters are smaller, and in these cases it is a good plan to take away one half the pigs, leaving the weaker ones with the sow for a few days longer. One or two of the weakest pigs may even be left for a week or two. With this method of weaning the sow's udder will dry up in perfect condition, and at the same time the weaker pigs will be given a good start.

The male pigs should be castrated before they are weaned. At that time, if the operation is rightly performed and conditions are favorable afterward, they will grow off with no appreciable setback. But if they are allowed to run until they are great big fellows, they will receive a setback when castrated, from which a few may never recover. After castrating, arrange for shade in case the weather turns hot immediately and provide plenty of pure drinking water and clean sanitary beds.

After the weaning period has been passed safely there are still many responsibilities for the swine breeder to meet. A reasonably safe rule to observe in feeding the growing shoats is to allow them at their regular meals every ounce they will eat up clean, providing the ration is a reasonably well balanced one. An abundance of skim-milk is a valuable help at this time. Forage crops will also assist materially in the finishing process. Not only do forage crops promote good health in the shoats but the gains made from these crops are attained at far less expense than similar increases on grain alone.

During hot weather shade and an abundance of drinking water are very essential for the shoats. Hogs suffer much in hot weather without shade and get weakened in vigor. A few trees in the hog pasture are always desirable, but when these are lacking sheds should be constructed. Water for drinking must be given four or five times a day. Much labor can be avoided here if a tank or trough is arranged for water to run into from the stock tank. The shoats can then help themselves to a drink at will, and on warm days one or more will be at the trough drinking nearly all the time. The practice of keeping a constant supply of water before growing pigs will add 20 or 30 pounds to each one's growth during the summer and fall.

Indiana. W. F. PURDUE.

PREVENT SORE SHOULDERS.

More horses are taken off of duty in the spring on account of sore shoulders than from any other cause. The care of the young horses' shoulders is one of the most important factors I bear in mind during the first few weeks of work, and I am never bothered with my teams having sore shoulders. I could not permit a horse with pain in his shoulders to be driven to the plow, as it is not only cruel, but the work he does is always unsatisfactory.

My observation in dealing with horses having sore shoulders shows that they generally get their injuries from poor fitting collars, especially when the collars are too large. Some horses are hard to fit with collars, and if one has an animal

of that kind it is best to have a harness maker fit the collar to the shoulder. I have seen collars that fitted badly made to conform to the shoulders by removing a small bit of the padding and taking up the surplus leather caused by the same. I never use heavy collar pads, as they are hot and become saturated with sweat, keeping the shoulders wet and rendering the skin soft and easily irritated.

I think dirty collars almost as responsible for sore shoulders as ill-fitting ones, and I always see to it that the face of the collar, (the part next to the shoulder), is kept clean of dirt and other accumulations. In the early spring the horses' shoulders are covered with long hair which becomes matted with sweat and dirt and scales from the skin. This I keep removed by using a little warm water and soap occasionally, followed with a good brush. As soon as spring has advanced enough for them to begin to shed I clip the hair off the shoulders and use the brush regularly three times each day.

I give the collar a good cleaning each night by using a little water and harness soap, occasionally followed with a bit of oil. This not only keeps the collar clean, but renders the leather soft and durable. I have noticed the horse collars used by farmers who complain of their horses having sore shoulders, and have almost invariably found dirty, poor fitting collars or pads. Some teamsters think the only cleaning a collar needs is to rake off the dirty accumulations with a knife blade or piece of tin. This is not the proper way to clean since it leaves a rough surface and often injures the leather.

Another precaution I use in regard to the young horse is to not allow him to do a full day's work until he gets used to his job, and also until he ceases to fret. Jerking a horse into and out of the furrow, permitting him to work with his head to one side, or throw his head up and down, are good means to develop sore shoulders. After the collar is removed from the colt I find it a good plan to sponge his shoulders with pure, cold water. If I have a little tannic acid at hand I sometimes add a small bit to the water before sponging. The acid seems to help toughen the skin.

Texas.

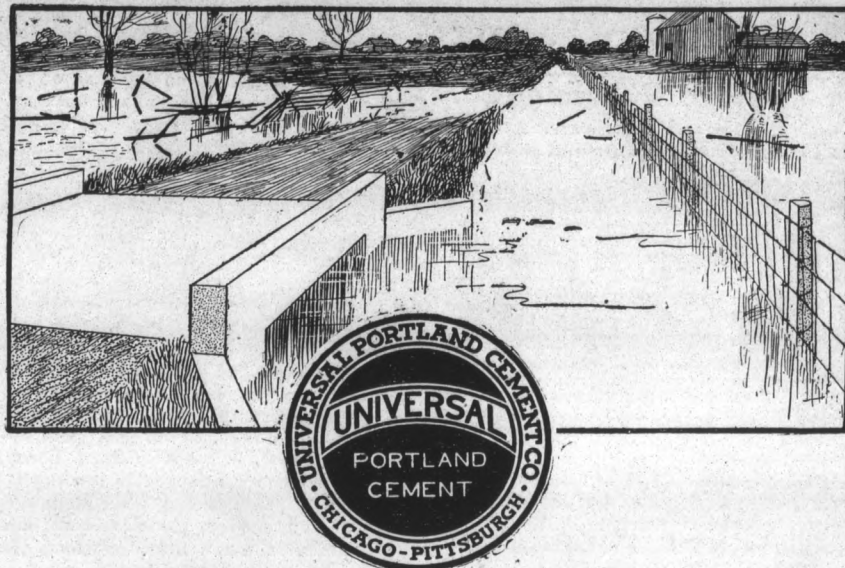
A. M. LATHAM.

LIVE STOCK NEWS.

Hogs have sold recently in Chicago at the lowest prices recorded in several weeks, the cause in great part being the uncertain eastern shipping demand for the better class of light and medium weights, although a wide-spread impression that the months of May and June would see much larger receipts in the leading markets of the country was a powerful factor in the recent rapid declines. As is usual at times when the market is headed in a downward direction, the local packing fraternity took advantage of every opportunity afforded by especially liberal offerings and a restricted shipping demand to force quick declines in values, and as large numbers of swine were carried over unsold from day to day, this added to the existing depression, the speculators losing on several days a great deal of money. These men, who are known as "scalpers," exist by buying straight loads of hogs just as they arrive and subsequently assorting them and then selling them to the packers and others, relying on advances after they get the hogs, but depending a good deal on obtaining profits from the better class of the assorted swine. Naturally, the business partakes largely of a speculative character, and it is really a good deal of a gamble. As profits are wholly uncertain, such traders must obtain liberal profits part of the time in order to offset the declines and leave a fair margin of money to the good.

Several things have conspired recently to increase shipments of cattle to market, including an unwillingness upon the part of numerous money lenders to renew loans on such stock and fears of the effect of the removal of the tariff on cattle and meats and a consequent invasion of our markets by beef from the exporting companies of South America and of cattle from Canada and Mexico. Country bankers have been pursuing a cautious policy of late, and there are quite a number of cases reported where they have urged weak holders of cattle to cash in their stock while there was a profit in sight. The tendency always is to ship in a good many cattle just before the time arrives for pasturing stock, ripe heaves being shipped out, as well as cattle that owners think it will not pay to place on grass, and the recent experience is by no means out of the ordinary.

A decidedly bearish sentiment has been developed recently in the provision market, in sympathy with bearish movements in the hog market.



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DETROIT, MAY 17, 1913.

CURRENT COMMENT.

The Alfalfa Campaign.

In another column will be found a brief account of the alfalfa campaign conducted in Kent county during the early days of this month. County Agent J. H. Skinner, of Kent county, who directed the campaign, states that he considers it an entire success, the attendance and interest at the meetings throughout the county being better than he had anticipated. At the 32 meetings held in five days there was an attendance of something like 5,000 people, and the names of about 400 farmers were secured who signified their intention of sowing from one to ten acres of alfalfa during the next 12 months.

Perhaps the strongest point in this campaign is the system of follow-up work which is planned in order to get personal direction and instruction to the farmers who are co-operating in this campaign on their farms, which will insure a large percentage of successful object lessons to other farmers throughout the county.

Aside from Mr. Skinner and several of his colleagues in county demonstration work, as well as prominent farmers and educators mentioned in another column, special acknowledgment should be made of the services of Prof. P. G. Holden, in charge of the educational work of the I. H. C. Agricultural Extension Department, and the staff of eight representative men in the same work who accompanied him. The same men also aided County Agent C. B. Cook, of Allegan county, in a similarly successful campaign in that county the following week, and will aid in similar work in adjoining states and probably in more counties in Michigan during the season.

Similar campaigns are planned in at least three other Michigan counties, although details have not yet been fully formulated. It is certain that Dr. Mumford and the farm management experts under him in the several counties of the state could scarcely have directed their work along any line which would have produced better immediate results in the improvement of Michigan agriculture. Such efforts are worthy of the co-operation of every farmer in the state and every Michigan Farmer reader should attend these alfalfa meetings in counties where they are yet to be held, to the end that this most valuable of forage plants may be more rapidly introduced in every county in the state, until the farm on which it is not grown has become the exception rather than the general rule.

A joint congressional committee on federal good roads.

Hon. Jonathan Bourne, Jr., is chairman, has been making an exhaustive investigation of the best method of co-operation of the government with the several states

for the construction and maintenance of good roads. A plan recently submitted to the committee by Mr. Bourne is worthy of mention, not alone because of its ambitious character, but as well because of the lesson in finance which its details hold.

This plan contemplates the apportionment of a billion dollar road construction fund among the states upon the basis of area, population, assessed valuation and road mileage. The plan of distribution is that the several states shall deposit in the United States treasury their 50-year four per cent bonds for the amount apportioned to them, the government to loan the states the par value of such bonds for the purpose of road construction. The government funds for the purpose are to be raised by the sale of 50-year three per cent government bonds. The plan further contemplates the crediting of each state every year with the excess of the one per cent interest paid by the state over the interest which the government pays upon its bonds, together with three per cent interest compounded annually on the excess of the one per cent. By this means a sinking fund would be established from which the government would pay off the bonds at the end of 50 years and the states be relieved of the payment of the principal of their bonds deposited with the government. Further provisions of the plan provide for the maintenance of roads, the government to pay to each state annually for road maintenance an amount equal to two per cent of the amount of the bonds on deposit, provided the states expend a like amount for the same purpose.

Under the plan there would be constant co-operation between the states and the federal government without placing the states under the control of any federal bureau or department in the execution of the work. It also contains a suggestion for the establishment of a national school for highway and bridge engineering to educate trained specialists as a means of supplying competent state and district engineers where needed.

Whether or not the plan is adopted it contains a lesson in finance as above suggested, which holds just as great possibilities along other lines. The same principle applied to the establishment of co-operative rural credit would hold a large measure of the same possibilities as this plan of financing a scheme for government aid in road building, provided a feasible plan could be worked out which would be adapted to our modern American conditions.

The American commission now on its way to Europe to study co-operation as exemplified by the farmers of Europe, particularly in relation to co-operative agricultural credit has an important task before it. Aside from the federal commissioners appointed by the President, whose names were given in a recent issue of the Michigan Farmer, there are nearly 100 delegates, chosen for their fitness for the task which confronts this commission, coming from every section of the country, many of them representing states or organization interests in this proposition. The first task of the commission will be to investigate the details of different plans of co-operative credit which have been successfully established in European countries.

Since efficient capitalization is the first step toward improved agriculture this is a fortunate line of inquiry and it is greatly to be hoped that the two objects sought may be attained as a result of this investigation, viz., first, to effect a saving to farmers by reducing interest rates on needed loans, and, second, to better the terms and increase the availability of loans. It is certain, however, that the accomplishment of this result cannot be attained alone through the three months of investigation pursued by this commission. Their efforts must be backed up by a public sentiment embracing a considerable percentage of the 12,000,000 farmers in the United States.

After all, the success or failure of this enterprise which has been under discussion for more than two years will depend upon the attitude of individual farmers throughout the United States. Unquestionably much in the way of educational benefit will result from this investigation on which the American commission has just set forth, but there is really little that this body of efficient men can do other than to advise with regard to the application of the experience of European farmers along this line to American conditions. Permanent organized work will be required to bring about the desired

result and the co-operation of the farmers themselves will be most essential to this end.

With proper interest and support from the great body of American farmers the development of public sentiment along this line is bound to be rapid and results most gratifying in their benefit to the agricultural industry of the United States. With a start made in co-operation along these lines it will be but a step further to organize suitable marketing associations to conserve the interests of the producer to a reasonable degree. Unquestionably the greatest good to the great-est number demands the greatest efficiency in production upon the farms of this country, and yet that efficiency should not be penalized, as under present conditions, by making a large crop less valuable than a short crop, as is illustrated in that staple product of Michigan, the potato crop, this year, and as was illustrated in the southern cotton crop last year.

We hope and believe that this semi-official investigation of European co-operation may be the first step toward the solution of these problems in our agriculture, and to that end we bespeak for the work of this commission and the earnest work which must follow before these ends are realized, the earnest thought and attention of every Michigan Farmer reader.

Mothers' Day is an institution which had its inception some years ago in the state of Pennsylvania. Gradually the sentiment has spread until now it is a day quite commonly observed in many states in the Union. Former Gov. Osborn was the first to designate a date to be known as Mothers' Day in Michigan. Following the precedent, Gov. Ferris has issued the following proclamation:

Never did the word mother have a broader and deeper meaning than it has today. The welfare of the world is related to motherhood. Would that the mothers of our sons and daughters fully realized the power they wield. Through the double standard of virtue established by man long ages ago, mothers have unconsciously granted their sons license to disregard the sanctity of womanhood. When mothers shall insist upon as clean men for husbands of their daughters as they now insist upon clean daughters for wives of their sons, a new era will have dawned in which the social evil and the white slave traffic will have largely disappeared from our fair land. The highest type of woman is the mother. The word mother thrills the heart with joy and gratitude, and gives to memory priceless treasures.

Therefore, I, Woodbridge N. Ferris, ask that the people of Michigan set apart the third Sunday in May (the 18th) as Mothers' Day. As far as possible, let parents in their homes and both young and old in public meetings discuss the theme of Mother with that enthusiasm and sincerity which should characterize all loyal Americans.

The fitting sentiment of the occasion is so well expressed in the above proclamation that further comment is unnecessary. We bespeak an appropriate observance of Mothers' Day by the great family of Michigan Farmer readers.

ALFALFA CAMPAIGN IN KENT COUNTY.

The gospel of alfalfa for every farm in Kent county has been preached in each one of the 24 townships, during the first week of May, with great success. Kent has had the honor of putting on the first national alfalfa campaign ever undertaken and was aided by perfect weather, excellent roads for the motor cars and by enthusiastic greetings of men, women and school children everywhere. About 40 meetings were held, the time allotted for each one averaging about an hour. Kent has fully 200 acres of alfalfa already and as a result of this campaign, it is estimated that the acreage will be multiplied by ten within a year.

The campaign opened with a dinner meeting Monday night in Grand Rapids and inspiring talks were given by J. H. Skinner, in charge of farm demonstration work in Kent, C. E. Bassett, of Fennville, secretary of the state horticultural society, President Snyder, of the M. A. C., Eben Mumford, director of farm bureaus for the state, H. R. Pattengill and L. L. Wright, of Lansing, educators of state-wide fame, J. C. Ketcham, master of the State Grange, Senator McNaughton, R. D. Graham, member of the state board of agriculture, and last, but not least, Prof. Perry G. Holden, the famed Iowa corn expert, who is leader now in agricultural extension work in the middle west.

Next morning ten big motor cars loaded with alfalfa boosters, accompanied by a motor truck loaded with alfalfa literature for distribution, also free packets of alfalfa seed, left Grand Rapids on a long tour through the county, which did not end until Saturday night. J. H. Skinner was leader and opened the meetings with concise directions on alfalfa culture. Prof. Holden followed him and expressed his pleasure on being able to return to his native state and open a movement that is bound to spread throughout the states. It was shown that alfalfa is a profitable crop; that it increases farm values and

excels every other crop in the yield per acre. Its value as a drouth resister, as a soil enricher and as a balance for the corn ration, was pointed out. Experiments show that profits from the crop in Wisconsin were \$31 per acre, as compared with \$14 per acre for timothy or clover. Alfalfa is rich in digestible protein and is equal to bran for milk production. Bran costs \$21 per ton, alfalfa hay \$5.15. Alfalfa balances the corn ration for pigs and makes cheap pork and cheap beef.

There were usually short talks given by other speakers, while at the evening indoor meetings, with an increased attendance, a longer program was given. As an example of what one man is doing it was learned that H. Morley of the northern part of the county, has 40 acres of alfalfa and will put in 40 acres more in June. He says he will keep at it until he has 120 acres of alfalfa and judging from results with the first 40 acres he will receive a net income of \$6,000 per year from the 120 acres.

Kent Co.

A. GRIFFEN.

HAPPENINGS OF THE WEEK.

National.

The city of Cleveland is suffering from an epidemic of typhoid fever, which is believed to be the result of the big floods of early spring, when the Cuyahoga river went outside its banks and swept contaminated water far out into Lake Erie.

President Wilson is appealing to Governor Johnson, of California, to hold the alien-land bill, recently passed by the Legislature of that state and now before the Governor for his signature, until matters can be diplomatically considered between this country and Japan to the end that evils may be corrected in a way that will be less likely to bring the two nations into unfriendly relations.

One person was killed and three injured when a Saginaw & Flint Limited car hit an automobile at a crossing at Clio last Sunday.

Street car men in Cincinnati are out on strike, with the result that the city is commercially at a standstill. An attempt was made Sunday to man the cars with strike breakers but this failed and resulted in several riots. It is expected that the strike will be extended unless the demands of the men are met.

The naval board is planning for the construction of a 40,000-ton battleship and will ask Congress to appropriate \$20,000,000 for the purpose.

Railroad conductors are holding their national convention in Detroit this week. Fully 2,500 delegates had arrived by Sunday and that many more were expected by the opening of the sessions Monday.

A fire in a candy plant at Kalamazoo damaged property to the extent of \$75,000 on May 11.

The city of Monroe, Mich., has planned to celebrate the 100th anniversary of the battle and massacre at the River Raisin. The date has been set for June 18.

Congressman H. Olin Young has resigned as representative of the twelfth congressional district of Michigan. Although the board of canvassers, in compliance with the election law, granted Mr. Young a certificate of election, the returns would have given the seat to his opponent, Mr. McDonald, but for the misprinting of the latter's name on ballots in certain precincts. These votes being counted out gave the election to Mr. Young, who now resigns. The action to be taken with regard to the representation of the twelfth district is a question. It is possible that a special election will be held.

For the first time since the Civil War the four great divisions of the Presbyterian Church of the United States will convene at Atlanta, Ga. Five thousand delegates are expected to be present.

The conference of republican senators and leaders is being held in the city of Chicago for deciding on the program looking toward the rehabilitation of the party. Senator Sherman, of Illinois, presided over the meeting.

George Shippey, at one time a prominent lumberman of Muskegon, died in Los Angeles, May 12.

Lansing is bringing suit against the Michigan Power Company to permanently enjoin that corporation from contracting with its citizens to furnish electricity for light. The city has a municipal plant and since it is giving excellent service and returning to the city coffers substantial dividends, the officials are anxious to give it a clear field and therefore hope to refuse the Power Company the right to do business.

The National Association of Manufacturers will hold its annual convention in Detroit May 19-21 inclusive. This organization is composed of 4,000 of the leading firms of the country. Industrial, political and economical questions will be considered at the sessions.

Foreign.

A typhoon struck the Philippine Islands on May 12, causing many deaths and wrecking several small steamers and numerous other craft. The known fatalities total 58, but it is believed that later reports will greatly increase the death list. No Americans are known to have been lost.

Five persons were killed and five others seriously injured by an explosion in a fireworks factory at Rome, Italy, where laborers were working overtime on signal rockets to be used by the Italian war department.

A collision between two Bulgarian military trains resulted in 100 persons being killed and 300 injured.

The international tribunal for the arbitration of private outstanding claims between United States and Great Britain will hold its first meeting in Washington, Tuesday. The claims to be adjudicated are of a private nature. This is the first attempt to settle such complaints since 1853. The American claims aggregate \$4,330,000 and the British claims, \$2,966,000.

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

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

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

First American Slaver Convicted as a Pirate.

By CLARA NEWHALL FOGG.

ALL along the New England coast one hears of the buried treasure of Captain Kidd, king of pirates. As the old men, in the twilight time of life, gather on the shore and tell strange stories of the past, they also whisper, with bated breath, of the slaver, Captain Nat Gordon, of Portland, and his tragic history.

Nat Gordon was a Maine man born in Portland. Down on York street his home still stands, one of the older Portland residences, built in 1740 by the father of the slaver captain. Three stories high, it was one of the largest square-roofed houses of its day and, when built, was called one of the finest in the city. It has three chimneys, and the roof pitches four ways, running to a point at the top. McLellan was the architect, a man who built many of Portland's old-time homesteads. First owned by the Gordons, the house became the property of Thomas Fagan in 1879 and now belongs to J. R. Libby.

With its deep fireplaces, its richly carved mantels of rosewood and mahogany, and its fine finish, the house is a very good type of colonial style. All the hinges and bolts on the doors are of rolled gold plate—not a mere wash, but genuine gold. A finely carved piece of workmanship was the parlor mantel, and Thomas Fagan gave it to a citizen prominent in Portland history. Later the brass knocker was presented to the same man. All the finish of the house, the hand rails, runs of the stairways and the balustrades were of carved mahogany.

The blackest period of the country's history was that of the American slave trade, and the dreadful fate of Captain Nathaniel Gordon marked the beginning of the end of the infamous traffic.

When Nat Gordon was a young fellow at his Portland home he heard much of the slave trade, of the adventurous life of the slaver, of the mystery of the barracoon; and it is probable that the romance of the tale wrought on his youthful imagination long before he understood its commercial value.

The horrors of the slave ship, the tragedy of the middle passage, were not then known to the boy who lived in the square-roofed house on York street. A companionable lad of likable ways and much charm of personality, young Gordon was even then a leader. Quick to learn, he was a keen observer, and as he grew older he realized that no trade paid larger returns on its investments than that of the slaver.

From the time the unnamed Dutch trader of 1619 sailed up the river to Jamestown with a cargo of slaves on board, to the days of Abraham Lincoln and the suppression of the nefarious traffic, the slave trade was a disgrace to the country. But older and wiser men than Nat Gordon did not hesitate to share the profits of the business and he followed the example of men even better born than himself.

Just how Nat Gordon became a slaver is not known, but it is probable that while pursuing a legitimate business as commander of a ship, he fell in with men who had amassed wealth in the unlawful traffic. Young and ambitious, he grew every year more covetous, and it was after his third voyage as commander of the Erie that he was captured as a slaver,

er, tried and convicted under the law of 1823 as a pirate—the first slave trader convicted of piracy in America.

Even before this there had been strange tales of the popular captain brought back from the Indies by ships' crews, homeward bound; of picturesque isles far out in mid-ocean, where pirates landed now and again to divide their treasure; where slavers sometimes plashed their oars through shallow waters to the shore. In those times there was easy interchange of trade to suit the exigencies of the case, and the slaver made brave showing with his more rapacious brethren for his share of the booty looted from some foreign-bound ship of commerce. No absolute proof of such a circumstance in Captain Nat's career has come down through the years, but there are stories of rich silks and jewels, of gold cups and vases found in the house on York street.

It was in the summer season of 1860 that Captain Nat took the Erie to Havana and completed an outfit for the slave trade that he had bought in New York. The three slave voyages made by him had proved remarkable in the way of

Then came the punishment of Captain Nat Gordon. Under the law of 1820, he would be condemned as a pirate, and this turned out a matter of difficult adjustment. To understand this law one must try to realize the conditions which prevailed at that period when the privateers made frequent attacks on unarmed merchant vessels. This was the time when West India waters swarmed with pirates and slavers; and, when it suited them, it was an easy matter for the slaver to turn pirate and the pirate, slaver. Such a state of affairs caused the passage of the bill that became the act of 1820.

The sections of this act pertaining to the slave trade show how the nation felt at that time in regard to the abominable traffic. The bill became an act on May 5, 1820, and on May 12 a resolution passed the House "That the President of the United States be requested to negotiate with all the Governments where Ministers of the United States are or shall be accredited, on the means of effecting an entire and immediate abolition of the slave trade."

The law was limited to a period of two

on and as at Gordon's first trial he had secured a disagreement of the jury, according to all the laws of precedent he was almost certain to go free again. So the people read the war news and there were few spectators in the court room. It was on November 8, of a Friday evening, when Judge Nelson delivered his charge and at seven o'clock the jury retired. After being out but twenty minutes they came back with the verdict, "Guilty."

Captain Nat was apparently unmoved. There was no scene in the court room, and the few people present accepted the verdict in matter-of-fact fashion. It did not dawn on them that they had assisted in the making of history. But next day, after the verdict appeared in the papers, New York redeemed her attitude of indifference. Motions for a new trial were denied, and when, on a Saturday morning, November 30, Captain Nat Gordon stood up and heard his sentence, the court room was packed with people who crowded to see the first American slaver convicted as a pirate.

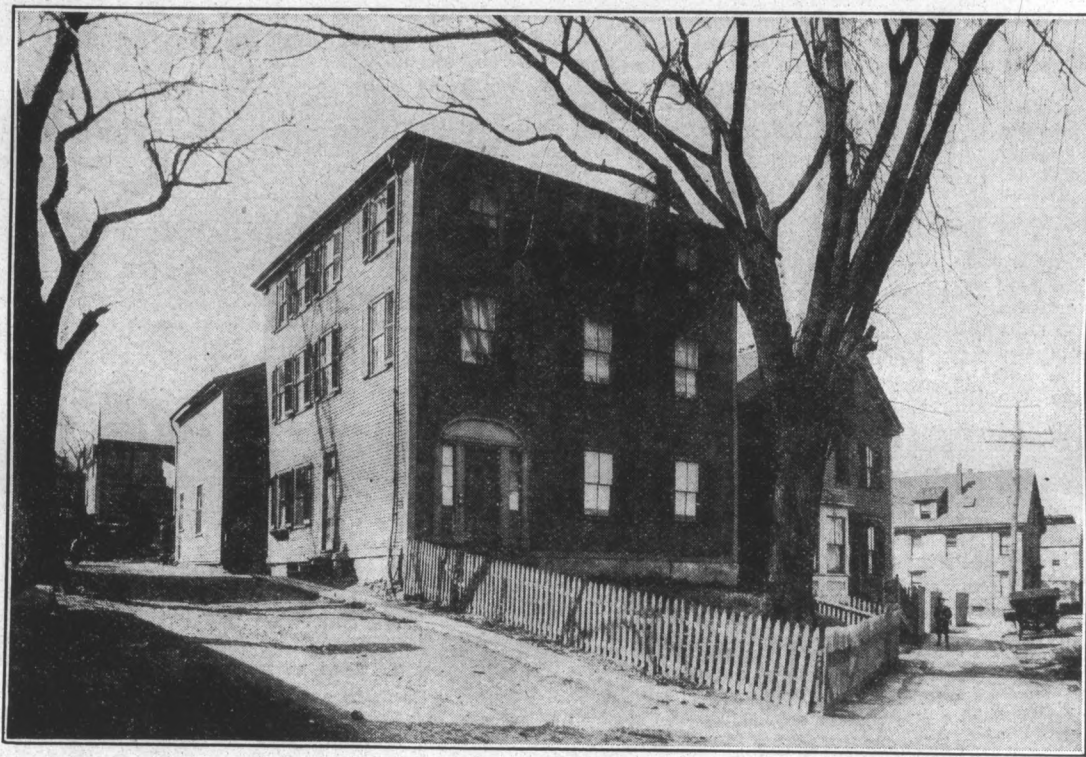
Captain Nat took his sentence calmly and, when the usual question was put, stated that he had nothing whatever to say. Judge Nelson ordered that the slaver be executed "between the hours of noon and three in the afternoon of February 7, 1862, hanged by the neck until dead."

Nat Gordon's friends made the greatest efforts to save him. When, on February 7, news came of a two weeks' respite by the President, it was thought he had commuted the sentence, but Marshal Murray undeceived Gordon as to this, telling him there was absolutely no hope. On the last day of his life one of his lawyers sent word that the governor of the state had sent an appeal to the President, and requested that the execution be deferred until the answer came. Marshal Murray told him it had been arranged with the President that no telegram from any source should interfere with the demands of justice.

The morning of the execution dawned, a clear, cold February day. There had been whispers of a mob that had vowed to break into jail and rescue the prisoner. It was a stormy time in the nation's history, and before that negroes had been hanging to lamp posts by New York mobs. But the Government was prepared. It was resolved that Gordon should die, that no mob should free him. Early that morning, just after the midnight hour rang out, a guard of eighty marines marched from the navy yard to the city prison. Entering the yard they loaded their muskets with ball cartridges and fixed their bayonets. The groups of men lingering in the neighborhood of the prison slunk away; there was no attempt to rescue by mob.

Not until that morning did Captain Nat give up hopes of pardon. Friends had conveyed, secretly, to him a dose of strychnine and this he managed to swallow unobserved by the guards. But he was not to escape the shame of the gallows. The doctors saved him and he was conscious when led from his cell. Just before the noon hour the marshal came and read the death warrant, asking the prisoner if he had anything to say. In a firm voice Gordon made this remarkable speech:

"My conscience is clear. I have no



A Mansion of Nearly Two Centuries Ago—The Home of the Slave Trader, Captain Nat Gordon.

profit, and he was anxious for another.

He sailed forty-five miles up the Congo into the interior, where he discharged a cargo of liquor; then he made the Erie ready for her return voyage with the cargo of slaves which he took on board near the mouth of the river. This was the seventh day of August; the slaves were packed 'tween decks and Captain Nat sailed for Cuba. Eight hundred and ninety slaves he took with him, and of these only 172 were men; 106 were women and the rest were boys and girls. It was easier to carry children, and safer.

The Erie, sailing with her dreadful cargo, was seen and captured by the Mo-hican, United States warship. The slaves were taken to Liberia, and Gordon and his ill-fated vessel brought to New York for trial.

As the ship had been taken with the slaves on board, the evidence was plain and she was condemned and sold at auction in October of that same year. Although she measured but 500 tons, she brought \$7,823.25, showing that she was a staunchly built ship.

years but was made perpetual on the 30th of January, 1823.

Tried and Condemned as Slaver.

Captain Nat Gordon was condemned but he had powerful friends who worked strenuously in his behalf, and when the case first came up there was a mis-trial. Later, a new administration came in power and a new district attorney, E. Delafield Smith, was in office, a man who never compromised by juggling with the law. Gordon's second trial was November 6, 1861. Ex-Judge Dean and P. J. Joachimson, both men experienced in cases of this nature, defended him. Judge Nelson presided. A jury was obtained in two hours.

As was customary at that time when the captain of a slaver was arrested, the plea was that Gordon was a passenger. The slave captains, ever in danger of arrest, always took with them on their voyages some foreigner, and when their vessels were boarded by alien ships, they turned the command over to this man.

At first people failed to take much interest in the trial. The Civil War was

fault to find with the treatment I have received from the marshal and his deputy, but any public man who will get up in open court and say to the jury, 'If you convict this prisoner I will be the first man to sign a petition for his pardon,' and will then go to the Executive to prevent his commuting the sentence, is a man who will do anything to promote his own ends, I do not care what people may say."

Made in the shadow of the gallows

Merle Dunsmore's Sacrifice.

By PEARLE WHITE M'COWAN.

The great convention hall was packed to its utmost. Men stood on tiptoes in the halls and craned their necks to catch a glimpse of the fair young singer, whose tender rendition of the old hymn was winning their hearts.

With rare insight for one so young, she has instinctively known that men still love the old songs best, and as her liquid warbling voice trailed out in, "Saviour thy dying love, Thou gavest me, Nor should I aught withhold, Dear Lord, from Thee,"

men held their breath for very fear of losing one single note of the sweet old tune.

Merle Dunsmore was not a great singer. She was one of those who know their limitations and do not aspire to fame. But unto her it had been given to touch men's hearts by the simple gift of hymn singing. And now, thrilled by the enthusiasm of hundreds, and by the sight of the little blue and gold badges scattered all over the room, and the uplift of inspiring words and sermons, she sang with an abandon and joy that captivated all her hearers.

The song finished, Merle's face still glowed with exultation and happiness. Adulation is very sweet to the young, and it would have needed one far less acute than she not to have read the silent approval in the upturned faces of that vast audience.

More than this, she counted herself a lucky girl just to be able to be here. It had taken considerable management and some sacrifice, but the result was proving well worth the price. Already she felt repaid for the efforts put forth and all the former self denial. The whole convention had been a glorious treat, each session an uplift, and the best was still to come.

On this, the last evening, Madame L., famed the world over for her wonderful vocal talents, had consented to grace the occasion with her presence, and two solos. It was for this that Merle had really come. For years Madame L. had been her idol in the musical world. Almost all her life she had longed to hear that great prima donna, and this was her opportunity—her dream was about to be fulfilled. It was almost too good to be true.

But listen, the chairman is speaking. "We have already arranged for two overflow meetings tonight, but word has just come to us that down on Water street there is a little mission that has been kept open ever since its foundation, five years ago. Its laborers have missed many a good thing because they felt it their duty to be there. Can we not send a delegation down there tonight from this great convention, to take charge of their little meeting, and leave those workers free this once to come and take advantage of the uplift and inspiration that they will receive here? We'd like about two speakers. Who'll be the ones to volunteer?"

A moment of silence, and then the one who had made the principal address of the afternoon arose. "I'll go," he said simply, and the audience, spurred by religious fervor, clapped. Another moment, and a young man over in a corner arose. He, too, would go, and again there was applause.

Then the chairman made another request. "Who will go and sing for them?" and Merle felt a sudden tightening of her throat strings. Who would do that? What singer could be induced to leave Convention Hall that night when there was such a musical treat in store?

She looked around over the vast concourse of faces. No one volunteered. The seconds ticked themselves off—and still no one offered to go. A full minute rolled away into space. "Perhaps they can get along without a singer," began the chairman doubtfully, and then—Merle arose.

though it was, this speech was untrue, for when the stenographic report of the trial was read carefully it was found that the district attorney's words contained nothing to confirm Gordon's statement. One learns, from the record of the hanging that has come down through the years, that Gordon went to the gallows pale with terror, his head hung over his shoulder, and had to be supported as he stood under the fatal beam. Thus he went into eternity, a black lie the last words from his lips.

She felt her companion's detaining hand upon her skirt. She was aware of keen disappointment. And yet she arose. A sure consciousness that this was her "offering" which she had no right to withhold, was thundering itself into her very being. The applause of the people meant very little to her now. She could have cried in vexation and disappointment. Yet she knew that she must go.

The meeting over, the reproaches of her comrades, who knew what she had sacrificed to come, and how it meant the abandoning of her long cherished and almost fulfilled dream, rallied her senses and brought her to an unyielding defense of her act. When they suggested that there was still time to change, she met them with firmness. Already the sensation of well doing was making itself felt in her heart.

That night a little group picked its way gingerly through the slime and mud of Water street and made its way toward the mission. There were the two speakers, Merle, and an older lady of her own party who, seeing the girl's persistence, and not being quite willing to let her go to such a place merely under the protection of two strangers, had volunteered to chaperon her.

Chance remarks showed that some of the party were still more or less disappointed at missing the evening session of the convention. Nevertheless they were all determined to make this little service in Water Street Mission one to be remembered.

When they reached the doors they found the place already crowded. News of the expected coming of some "big bugs" (in Water street parlance) had quickly sped and drawn an unusual attendance.

From the first the meeting was a success. The enthusiasm of the big convention had spread even to this little out of the way mission. The congregation sang with all the gusto and lustiness of the illiterate. The afternoon convention speaker outdid himself in forceful, logical statements that carried conviction and weight. The young man followed with pleadings and entreaties that brought strong men to the altar. And then Merle sang—another of those old sweet songs that everybody loves. A newer hymn would have failed to reach Water street hearts that night, but "There Were Ninety and Nine" brought tears to many an eye.

Clear on through the whole five verses, ringing in the pathos, and the glad cry "Rejoice I have found my sheep! And the angels echoed round the throne Rejoice, for the Lord brings back his own." Merle sang and, singing, failed to note the eager eyes, back in a corner of the poorly lighted room, which hungrily devoured each word and tone and look.

She could not know how one young man's heart was touched to the breaking point. How the old hymn, sung by this fair-faced singer, brought back a flood of memories that hurt and lashed and softened a heart made harsh by criticism and blame and a too intimate contact with an unkind world, until he yearned with a great yearning for the home and love that he had spurned. It brought back memories of a mother tenderly pleading, with tears in her eyes, for him to mend his ways; and of a father, justly angry, and unforgiving, and a little fair-haired sister who had loved and clung to him despite his wild and headstrong ways. And he had rejected it all. "Sold his birthright for a mess of pottage," and he would have given his life, and all its unalluring prospects, to have been back there basking in the love of home and dear ones just for one little day. Bitterly he upbraided himself, as he had done many times before, finally resolving to begin that night to make a man of him-

self, worthy once more to enter his father's door.

But he did not go to the altar. Instead he slipped out just as they were singing the last hymn. He did not dare trust himself to stay longer. Slipped out and started for his barren little room a few blocks away, determined not to give way to the longing that possessed him. But before he had reached his rooming house, that dominating yearning in his heart overpowered him, and he turned back.

A few moments later the little delegation from the convention, flushed with the success of the meeting, was wending its way cityward. Merle and her companion, lagging a little way behind the two gentlemen, heard footsteps rapidly approaching. Turning aside a bit for the hurrying pedestrian to pass, they were surprised and half affrighted when he wheeled about abruptly and faced them.

The older woman, annoyed and suspicious, would have ignored the stranger's outstretched hand and hurried Merle along to join their escorts, walking on ahead, engrossed in their own conversation, and as yet unaware of their companions' detention, had not something in the quality of his speech made her pause.

"Don't you know me?" he asked, addressing Merle. "Don't—you—know—me?" and his voice was husky and full of feeling. And then suddenly Merle gave a glad cry, and breaking from her companion's restraining hold she clasped his hand in both of hers and leaned eagerly toward him. "It's Ben," she breathed exultantly. "Oh, Ben! My Brother Ben," while the quick tears streamed down both their cheeks. "Is it—can it be—you—really you?" giving him a glad little shake to assure herself.

"Yes, Merle—it's me," he answered brokenly. "I didn't intend to make myself known to you. But I couldn't help it. I just couldn't help it. I wanted—to hear—" his voice breaking, "About all of us," she finished for him softly, "and so you shall."

And when he would have drawn away,

PLOWING THE FIELDS FOR CORN.

BY CHARLES H. MEIERS.

They're plowing the fields, and the smell of earth,
Turned up to the balmy air,
Makes life seem fresh and toil seem worth
Far more than a load of care.
When I hear the plowman's voice I sigh
For the place where I was born,
And I long for the peace that I knew
When I
Was plowing the fields for corn.

But I left the fields with their healthful charm,
And I've journeyed far since then;
And I never toiled upon the farm
As I've toiled with a writer's pen.
And oft when the springtime breezes blow
I go forth in the early morn
To view the scenes that I used to know
When plowing the fields for corn.

Though I find much joy as the years go by
In the life that I'm living now,
When the springtime comes I always sigh
And wish I might go and plow;
For there's peace, and health, and happiness—
Three joys that no man dares scorn—
In the farmer's life. I might worry less,
Were I plowing the fields for corn.

THE OLD FARM.

BY MILDRED M. NORTH.

I love the farm in springtime—
When the grass grows green again;
When each day I look and listen
For the blue-bird and the wren.

When dauntless pussy-willows,
In sleeping-bags of fur,
Are calling from their lookouts
That sap is all astir.

And then the fruit trees blossom,
My longing eyes to greet,
With wealth of perfumed beauty
Whose life is all too fleet.

I love the farm in summer—
Its fields of new-mown hay,
The busy bees, sweet-laden,
The skies at close of day.

I love its shady forests,
And wave-rocked seas of grain,
The bright blue skies and sunshine,
The showers of welcome rain;

Its dew-gemmed early mornings,
The twilights, cool and late,
When some bird, half-awakening,
Calls softly to its mate.

I love the farm in autumn—
Its leaves of red and gold,
Its tiny folks all busy
Preparing for the cold;

The apple trees low-laden,
The cricket choir well hid,
And somewhere in the darkness
The hoarse-voiced katydid.

I love its days of glory,

pleading his unworthiness, she clung to him and drew him along with them, introducing him to her companions, too truthfully glad at the unlooked-for reunion to be annoyed by his poverty-stricken appearance, all the time pouring out her story of the loved ones at home; of the father who had long since forgiven, and the mother whose heart was breaking for the return of her son, finally adding thereto the tale of her own sorrowing, his little fair-haired sister who loved him in spite of his wild ways. "And only think," she exulted, "I'd never have found you at all if I hadn't gone down to that little mission. Oh, but I'm glad—glad," squeezing his arm joyously. And her brother, wholly repentant, and truly humbled by the unlooked-for tenderness of her reception, bowed his head and inwardly prayed, "God make me worthy."

"And you are going home with me," she planned, when their companions had considerably withdrawn themselves a little way. "Yes, you are," and when he murmured and pleaded that he must first "make good," she still urged, "you must come home first. Mother has waited long enough. 'Twould break her heart if you didn't come—and father—father's not as well as he used to be, Ben. You can make good afterward. We'll all help you, but—don't deny them the joy of seeing and forgiving you now. That's the first step." And, catching his hesitating downward glance at his shabby clothes, "Never mind those," she begged, "I have money with me. We'll go shopping the first thing in the morning; tonight you'll stay at the hotel with me, and we'll go right now and send a telegram to mother and father. We mustn't keep them waiting a minute longer than necessary for such glorious news as this."

And when he had consented, and the message had gone on its way, even the very wires sang joyously, for though they only carried a few simple little words, yet they bore wonderful rejoicing to that old home, because a son that was lost was returning.

All gold and purple haze,
King Midas' touches showing
Down all the woodland ways.

I love the farm in winter—
Shut in from all the world.
Outside the falling snowflakes
By icy winds are whirled.

I love the ring of sleighbells,
The snowy hillsides set
With hosts of flashing jewels—
King Winter's coronet.

Shut in with those who love us
We have no wish to roam.
'Tis then we prove most truly
The dearest place is home.

In green of spring or summer,
In flame-hued robes of fall,
Or winter's snowy garments,
The farm is best of all.

Lady (at the jeweler's)—Is this diamond genuine?

Jeweler—As genuine as your own hair, madam.

Lady—Ahem—let me see something else.

Mr. Jawback—My dear, I was one of the first to leave.

Mrs. Jawback—Oh, you always say that.

Mr. Jawback—I can prove it this time. Look out in the hall and see the beautiful umbrella I brought home.

YOU HAVE THE OPPORTUNITY

of getting one of the beautiful six-page Michigan Farmer Wall Charts for only 30c, postpaid, if you send your order at once.

It is the finest collection of charts ever put together. Contains a map of Michigan, showing congressional districts, counties, railways, etc., the latest 1910 census of all Michigan towns, 25 colored plates, showing the anatomy of the horse, cow, sheep, hog and fowls, and giving the name and location of each organ, muscle and bone. A treatise on each animal by the best authorities, treatment of common diseases of farm animals, map of the world, showing steamship lines, map of the United States, flags of all nations, rulers of the world, Panama canal, all our presidents, and several other features too numerous to mention.

These charts have been sold mostly for \$1.00 or \$1.50. They will decorate and instruct in any home or office. We offer them at this price to quickly get rid of them and after our present stock is exhausted no more can be had. Remember the price is only 30c, while they last. Send your name to the Michigan Farmer, Detroit, Mich.—Adv.

LITTLE FARM FABLES.

BY AUNT QUILLIA.

Getting There.

A herd of cattle having learned that Farmer Wiseman had thrown his meadows open for the summer and had invited all stock for miles around to come in and get free pasture, a few of them fell to discussing their good fortune.

"While I am thankful for the privilege," concluded Shorthorns, "I can't understand why he should have done this thing. Not another farmer about here would have thought of being so liberal, though their pastures are much finer and more numerous."

"Why, my dear greenhorn," replied Sir Galloway, "It is not an act of charity at all. He is simply doing it for his own benefit. Wants to fertilize you know. What is your opinion Hooft?"

"I have neither opinions nor curiosity concerning the matter," replied Hooft. "My chief interest is centered on getting there. Wouldn't give a straw for the motive. As the bars are to be closed by sunrise tomorrow, and those first on hand are to have their pick of the lots, it seems to me that all of us should be thinking about getting there, and getting there on time."

During this discussion most of the herd had been dozing or quietly chewing the cud, and soon after Shorthorns and Sir Galloway joined them.

Hooft fell to ruminating—in a way—also. "Get there," thought he, "that is my watchword, and get there I will. Not only are my own advantage and reputation at stake but the honor of my breed. Everybody knows that I come from the longest line of thoroughbreds in the old country. Ambition has always been our motto. Our family escutcheon is lost and I have been selected to design another. One thing is certain. 'Get there' will be emblazoned upon it and stand forth in letters that will challenge the admiration of the world."

So all night long while the stars circled above him, bringing midnight, then the wee small hours, then cock-crow, and finally the first hint of dawn, Hooft stood with head above the enclosure intent on his plans of getting there.

This was in the day of the old worm fence, and long before midnight he had the rails displaced in order to facilitate the final break for the highway.

When at last a cloud of dust heralded the approach of a long line of grass-seekers, with tail erect and a snort of defiance, Hooft tossed aside all remaining obstacles and, with one bound, plunged into the midst of the caravan.

On his way to the front he trampled on many of the younger and weaker members of the company, leaving them to die of heat and thirst, broke the legs and smashed the ribs of stronger ones, and even gored the sides of others until the blood ran down in deep red channels to the ground.

At last Farmer Wiseman's premises were reached; the bars were still down and, with one wild leap and a snort of victory, Hooft landed inside of the green Eldorado.

Selecting a retired lot through which a clear creek ran, and believing himself to be the sole occupant thereof, he began reviewing his success and chuckling thereat.

Presently a serious countenance peered at him through a clump of bushes. It was the face of a venerable friend whom he had long supposed dead.

"We have a choice lot indeed," began old Durham, "but having heard your methods of getting here I can't say that I congratulate myself on my company."

"Years ago I attended a state fair, and while they were tying the blue ribbon on me two judges fell to discussing a speech they had just heard. The theme was Success, and the speaker had closed by quoting these words: 'If, in getting there, as you call it, you leave your principles behind you, the best part of you does not get there.'"

"Now, we are not supposed to possess principles, but we have plenty of good instincts and, although you are here—hoofs, horns, and hide—that is all. The finest part of you was left in the race. Do you call that getting here?"

"I'm a self-made man," said the proud individual.

"Well, you are all right except as to your head," commented the listener.

"How's that?"

"The part you talk with is too big for the part you think with."

No-Rim-Cut Tires 10% Oversize

Our 11% Reduction

On April 1st, we reduced our prices on No-Rim-Cut tires 11 per cent, on the average.

This was partly due to lower cost of rubber, partly to multiplied output.

Rubber Prices

Cultivated rubber is becoming so plentiful as to force down the price of Para.

For the twelve months ending March 31st, we paid on the average \$1.09 per pound. On March 31st, the price of rubber was 88 cents per pound.

On the other hand, fabrics, in the same time, advanced 15 per cent. Labor cost materially advanced.

So, on tires in general, lower cost of rubber has led to no large reduction.

Factory Cost

But Goodyear sales have doubled over and over. Immense new factories have been completed, with the most modern equipment.

Our output is the largest in the world. In motor tires it is nearly ten times larger than three years ago.

It was this multiplied output, in main part, which justified our 11 per cent reduction.

Our Profits

At the end of each year we advertise our profits. This is to assure you that in Goodyear tires you get all the value possible.

In times past this profit has averaged about 8½ per cent. And this reduction, in our opinion, keeps it that low this year.

Under this policy, and with our vast output, it will never be possible to sell equal tires for less than Goodyear prices.

Cost Per Mile

There will always be tires selling under Goodyears, until all learn that lesser tires don't pay. Tires can be made at half the Goodyear cost, by the use of cheap compositions.

Our policy is always to give you every cent we save. To keep our profits down to 8½ per cent.

That is one reason why Goodyear tires far outsell all others.

But we shall see that you never, in any tire, get lower cost per mile. And that's the only right way to figure. We shall never offer, at any price, less than the utmost in a tire.

No Extra Cost

No-Rim-Cut tires, since this reduction, cost no more than any standard make of clinchers.

These tires never rim-cut. And 23 per cent of all old-type tires are ruined in that way.

In air capacity, No-Rim-Cut tires are 10 per cent larger than clinchers. And that, with the average car, adds 25 per cent to the tire mileage.

Yet these new-type tires, with all their advantages, cost no more than old-type tires without them. That's why hundreds of thousands of motor car owners have come to No-Rim-Cut tires.

Your tire upkeep will be immensely lowered when you adopt them, too.

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.

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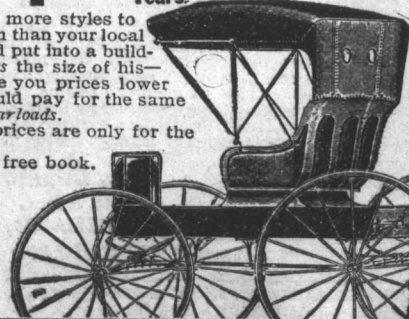
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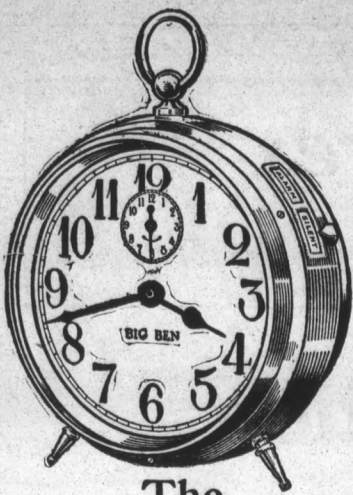
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Big Ben is the biggest thing today in the alarm clock business.

He is only two years and a half old, but he's already getting more work from the States than any clock alive.

In two years and a half time, 18,000 jewelers—70% of the total number of United States watchmakers—have already adopted him. Two million and a half families leave it to him to call them up in the morning. Two million and a half families use him all day long to tell the right time by.

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Big Ben stands seven inches tall. He is triple nickel-plated and wears an inner vest of steel that insures him for life. His big, bold figures and hands are easy to read in the dim morning light. His large, comfortable keys almost wind themselves. He rings five minutes steadily or ten intermittently. If he is oiled every other year, there is no telling how long he will last.

He's sold by 18,000 watchmakers. His price is \$2.50 anywhere in the States, \$3.00 anywhere in Canada. If you can't find him at your jeweler's, a money order mailed to Westclox, La Salle, Illinois, will send him anywhere you say, express charges prepaid.

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LOW FACTORY PRICES

We sell the highest grade bicycles direct from factory to rider at lower prices than any other house. We save you \$10 to \$25 middlemen's profit on every bicycle. Highest grade models with Puncture-Proof tires, imported roller chains, pedals, etc., at prices no higher than cheap mail order bicycles; also reliable medium grade models at unheard of low prices.

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Women and Her Needs. At Home and Elsewhere.

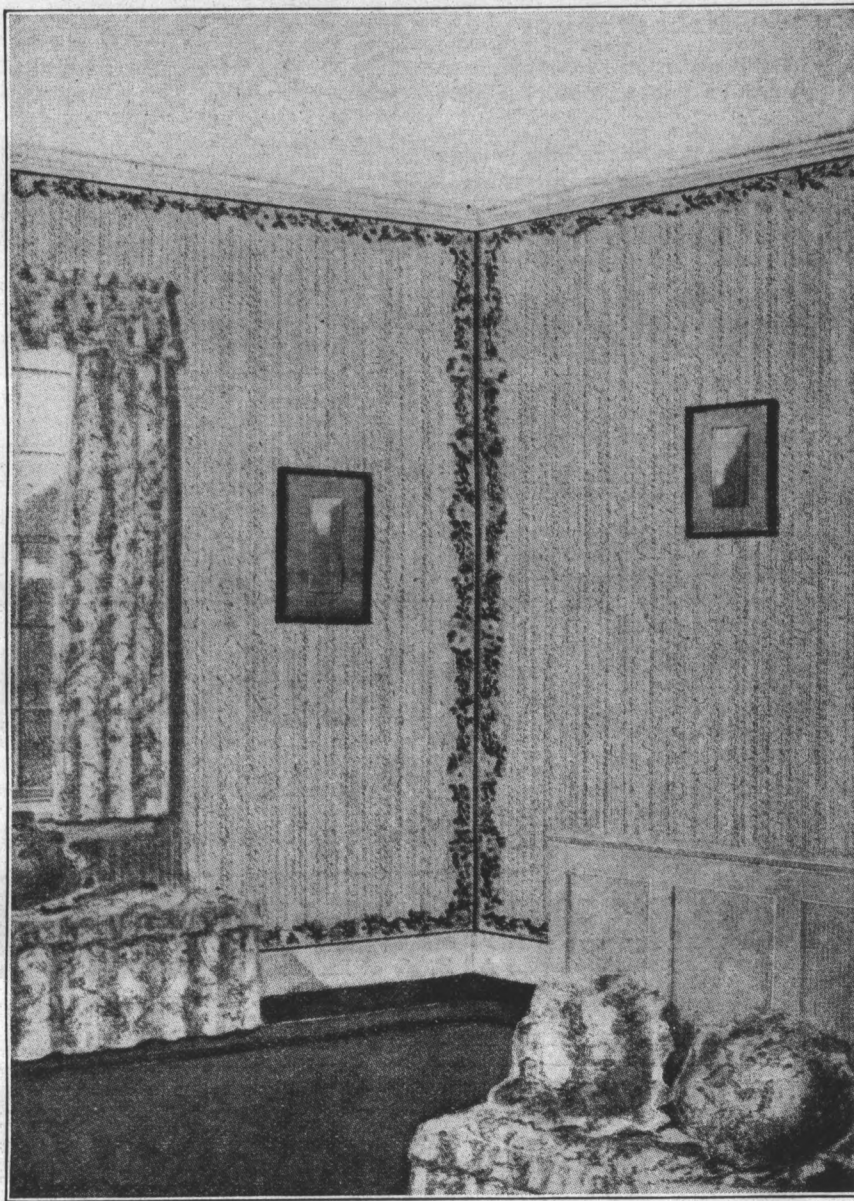
This Will Help You Select Your Paper.

FOR some reason best understood by woman herself the sound of the first robin and the glimpse of the first crocus is inseparably bound up with the smell of strong soapsuds, paint, varnish and paste. Nature sends her March winds and April showers to sweep and wash the old world clean, and we, being naturally imitative, can not help copying her. So we make clean and fresh our dwellings.

Most of us are going to paper one or more rooms, and those who are not going to paper now will want to before the summer is over. There are certain rules which we have read and heard so often that we all know by heart, such as not putting gray or blue paper in a north room. We have been told so often that those rooms which get little sunlight need paper that suggests the sun, such as yellow or tan or perhaps red, while cold col-

leather and grass cloth for dining-rooms, and the light papers in stripes and colonial effects for bed-rooms. If your ceilings are low, say not more than eight and a half feet, use a striped paper to give the appearance of height. The drop ceiling with the picture molding a foot and a half down the wall is entirely out. The molding must go to the ceiling and a crown or cut out border used if you wish to be strictly up to date.

Now a crown and a cut out border are two different things. A cut out border is sold by the yard, the price ranging from eight cents to 20 cents for living-rooms, while crowns are individual designs which are made to exactly fit the design at the top of your strip of wall paper, and cost about 15 cents apiece. Crowns are usually used with paneled paper, while the cut out borders are good with paneled paper or plain effects. The



Cut-Out Borders Frame the Walls.

ors, such as gray and blue, belong in sunny rooms, that we have the lesson thoroughly learned. The paper man gave me two or three hints, however, which were new to me at least, about the sort of paper to use if we wish to show up our furniture to the best advantage.

One of them is, do not use a tan or yellow paper in a room with your brass bed. Light green will show off the brass to a better advantage, while the tan or brown will make an ideal background for mahogany furniture. Light green is also best for quarter-sawn oak. I suppose if we stopped to think of the colors which go best together we would know those things without being told, but most of us have the habit of picking out the paper we consider pretty, or that we can afford to buy, without regard to our furniture.

If you are to paper, stop and consider your room, its exposure, its height, the color of your rug and the sort of furniture. Then choose the color which will fit. Tans and yellows are very popular this spring for living-rooms, imitation

cut out border is used frequently at the bottom of the room as well as at the top, when a plain paper is used, and adds greatly to the beauty of the room. In putting it on at the bottom, in a small room, it is better to stop at openings and begin again on the other side. Some continue the border around the sides and across the top of windows and doors, but this usually makes the room look overdone. If the room is large, say 16x16 or 14x20, or some such size, it could stand the border continued.

Occasionally a wall is paneled with a border, or a "liner." A liner is a running band in a conventional design, while borders are usually floral. When the room is paneled, the border or liner is simply run around the outside edge of all four walls, not down each strip of paper as was done for awhile in dining-rooms.

Now that plate rails are abolished, the break in the dining-room wall is frequently made with a liner. A beautiful dining-room can be secured by using an imitation leather for the lower part of the wall, say five and a half feet or six

CLEARED AWAY

Proper Food Put the Troubles Away.

Our own troubles always seem more severe than any others. But when a man is unable to eat even a light breakfast, for years, without severe distress, he has trouble enough.

It is small wonder he likes to tell of food which cleared away the troubles.

"I am glad of the opportunity to tell of the good Grape-Nuts has done for me," writes a N. H. man. "For many years I was unable to eat even a light breakfast without great suffering."

"After eating I would suddenly be seized with an attack of colic and vomiting. This would be followed by headache and misery that would sometimes last a week or more, leaving me so weak I could hardly sit up or walk."

"Since I began to eat Grape-Nuts I have been free from the old troubles. I usually eat Grape-Nuts one or more times a day, taking it at the beginning of the meal. Now I can eat almost anything I want without trouble."

"When I began to use Grape-Nuts I was way under my usual weight, now I weigh 30 pounds more than I ever weighed in my life, and I am glad to speak of the food that has worked the change." Name given by Postum Co., Battle Creek, Mich. Read the little booklet, "The Road to Wellville," in pkgs. "There's a Reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.

We Pay For Your Help

When you have the chance to easily make some money, won't you take it?

It will mean money in your pocket if we can provide your friends with our unusual combination insurance for non-users of alcoholic liquors. This insurance pays an income during disability from any kind of accident, in addition to insuring the life for a substantial sum. Rates are lower than usually paid for life insurance alone. This is the only policy in existence giving special low rates to temperate people.

Here Is Our Offer

Just send us the names of a few of your friends who ought to have this kind of protection and we will present the advantages of the insurance to them, without using your name unless permitted. When the policy is issued and paid for, you will receive a liberal commission. That's fair, isn't it, and worth a few minutes of your time to get your list in first?

This is a case where promptness will pay. Write to-day

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Shirley President Suspenders

The adjustable back overcomes every drawback common to ordinary suspenders. Light, Medium or Extra Heavy. Extra lengths for tall men. Satisfaction or money back.

Price 50 cents, any dealer or the factory.

The C. A. Edgarton Mfg. Co.
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FLIES and mosquitoes, one of Clark's Fly Exits attached to screen lets them out, can't return thru exits, 10c ea., \$1 doz. Dr. L. W. Clark, Carterville, Mo.

feet from the floor, and a Tiffany tapes-try for the upper wall, with a liner harmonizing in color with both papers separating them. Of course, the upper part will be lighter than the lower and the ceiling still lighter. These Tiffany papers are very beautiful. The pattern is indistinct like the patterns in a Dresden ribbon. They come in gray, tans, greens, in fact, all colors. But while they are beautiful and popular they do not give as good service as a plain paper.

If you wish a green dining-room, the imitation leather would, of course, be in brown or russet, you will do well to choose grass cloth for the lower portion and Tiffany, or oatmeal, or even a plain paper for the top. Don't choose a grape border, though, even if the dealer does advise it. Get a cut out floral border or a simple liner with a Greek key or other conventional design. Grapes were good seven years ago, and while some dealers are still showing them, they were worn out long ago.

If you are wise you will not paper your kitchen. It will get two or three coats of pale green or tan paint. But if you can not paint, by all means get a glazed paper. You can get these for 35 cents a roll. They will not absorb steam and moisture and can be washed like paint or oilcloth.

The bedrooms are easily cared for. Light colors, green, French blue or French pink, grays or yellows, are any of them good. Do not choose a floral design, however, but rather a stripe or cretonne effect. Papers with roses and chrysanthemums the size of cabbages went out when cut out borders came in, as you can readily imagine the two do not go well together. Of course, cretonne papers have flowers in them, but they are tiny posies arranged in stripes, never sprawled all over the paper. Pink and blue fade, but as all paper does in time it really makes little difference what you choose on that account.

Nursery papers, that is, papers with Mother Goose pictures, are out. They had a short vogue for children's rooms, until it was found that the children really didn't care much for them. Most children have a few pictures of their own for their walls, and these never showed up well against the nursery paper.

HOME QUERIES.

Household Editor:—Since living where I now do I have found a moth, different from any moth I ever saw. All I ever saw before were long ones, called feather moth. These are small and round. Don't know if it is what is called Buffalo bug or not. I find it everywhere, not only where furs and flannels are, but where there are none. In dresser drawers and where there may be a little dust collected. I find nothing I am sure has been eaten by them unless once in a while a break in carpets is caused by them. Still that may be from other causes. Can anyone tell me what they are and what to do to get rid of them?—Mrs. M. S.

Take all carpets and rugs out doors and beat thoroughly. Then drench with gasoline and roll tightly. Place in an unused room and leave 24 hours, after which unroll and air thoroughly. In the meantime wash all floors and woodwork and shoot gasoline or wood alcohol and red pepper into all crevices. Sprinkle burnt alum in all drawers and in book-cases, as the moths eat the bindings off books in some cases. When you relay your carpets and rugs put tar paper under all. Keep careful watch all summer as these moths breed rapidly in warm weather and are almost impossible to get rid of if they get a good start.

Household Editor:—Would you advise putting the baby out doors to sleep?—M. L.

By all means, in fair weather. And in bad weather he should always sleep where he gets plenty of fresh air. The old notion that the windows must be kept down and the baby constantly in an overheated atmosphere is a dangerous one.

Household Editor:—How should luncheon table be laid, with a cloth or doilies?—Mary B.

Doilies are preferable for luncheon, if you have a pretty polished table. If the table is old or scarred I would use the cloth.

Household Editor:—Would you give a baby soothing syrup or things to quiet it and make it sleep? My mother says she always gave them to us and they didn't kill us.—Young Mother.

Times have changed a great deal since your mother brought you up, and modern thought has changed regarding soothing syrups. It is now known that a healthy infant will not be fretful and wakeful, and will get all the sleep he really needs. If your baby is cross and does not sleep he is not in a normal condition. Instead

of spending your money for "dope," take it to a competent physician and let him tell you what is wrong with your child. Always remember that a healthy baby is a happy one, and the reverse is equally true. A cross baby is not well.

Household Editor:—How can I use up cold baked beans?—Mrs. C.

You might make baked bean soup. Simmer the beans in boiling water ten minutes, using cup for cup. Then force through a strainer, add as many cups of cooked tomatoes as you have beans, season with salt, pepper and butter, boil up well and serve.

LETTER BOX.

How Shall we Read?

As we read the Michigan Farmer we enjoy reading the Practical Science, The Nomid System, The Labor Problem Solved, As on One Man's Farm, and Home Queries. How shall we read? With thought. Stop and think, we must to reason out things. The saying, "All things come to him who waits," I never did reason out, but this saying, "All things come to him who hustles while he waits," I have proven true.

Take, for instance, Practical Science, as the writer tells, compare it with physiology, Kellogg's Laws of Health, and similar writings. See what we can accomplish in good health by practicing with thought what we read.

"Oh," says one mother, "I have no time." Dear mother, while you are resting think on these things. Do not wait to get sick but practice these proven sayings, not only in eating and drinking but also in dress. In the latest styles in dress one cannot get enough clothes on to brace against our Michigan winters. Just think, to wear slippers in winter, is it reasonable? And our state supports a tuberculosis hospital. Who for? For those who transgress the laws of practical science.

There is enough reading to teach all how to prevent, or not contract, tuberculosis and, if you please, many other diseases. Prevention is better than cure any time. We can get just what we are looking for. If you are looking for something on health write the State Department of Health at Lansing, Mich.—L. F.

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. 7651—Fancy waist, 34 to 40 bust. With or without loose panier and chemise.

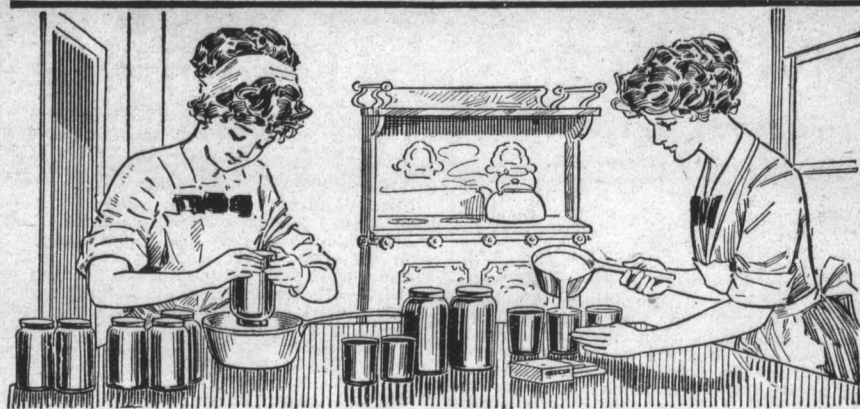
No. 7659—Single-breasted coat, 36 to 46 bust. With cutaway or straight fronts.

No. 7272—Semi-princess dress for misses and small women, 14, 16 and 18 years. With three-piece skirt, with revers and high neck or shawl collar and open neck, with long or elbow sleeves.

No. 7675—Two-piece skirt for misses and small women, 16 and 18 years. With or without tunic, with high or natural waist line.

No. 7236—Three-piece skirt, 22 to 32 waist. With round or square corners at side-front, 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.



Preserving, a Pleasure —with Parowax

Dip top of jars and catsup bottles in melted Parowax. Or pour this pure paraffine directly on top of contents of each jelly glass. Result—a perfect, air-tight, mould-proof seal that keeps canned vegetables, catsup, chow-chow, preserves and jellies indefinitely.

that it can be chewed like food or gum.

Indispensable in the Laundry

Parowax cleans and whitens clothes in the wash. It imparts a beautiful finish to them in the ironing. And Parowax has a hundred other household uses. No home should be without it.

Your druggist and grocer both keep Parowax. Order it today.

Mrs. Rorer's Recipe Book

Ask your dealer for this valuable free book by this celebrated culinary expert. Or send direct to us.

No Tins or Tops Needed

It is even simpler than it sounds. It is as cheap as it is easy. No bother with tops that will not fit. Not even paper covers need be used. The direct contact of Parowax with the jelly cannot affect its taste or goodness.

Parowax is tasteless and odorless. It is so thoroughly harmless

STANDARD OIL COMPANY, Chicago, Ill.
(AN INDIANA CORPORATION)

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take along a case of

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The satisfying beverage—in field or forest; at home or in town. As pure and wholesome as it is temptingly good.

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THE COCA-COLA COMPANY, Atlanta, Ga.

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We have exceptional values in USED FURNITURE, for sane and sensible thrifty people who prefer used goods of good quality to shoddy goods, fresh from the factory with the wood still green and smelling of cheap varnish. Rare opportunities to economize in getting the new furnishings you require, with articles that will look better and last longer, below original manufacturing cost. Parlor Suites, Sideboards, Beds, Chairs, Bureaus, Bookcases, Desks, Couches, Tables, Stoves, Ranges, Ice-Boxes, Kitchen Cabinets, Rugs, Carpets, Pianos, Organs, Sewing Machines, Chinaware and Glassware.

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PIONEER BARGAIN HOUSE
2102 North Ave. (Dept. 3) Chicago, Illinois

Markets.

GRAINS AND SEEDS.

May 14, 1913.

Wheat.—Although there was a slight decline in wheat values on Tuesday, the market during the past six sessions has recovered nearly all the loss of the previous week. The trade is supported largely by foreign demand, while the bears continue to publish the excellent crop conditions in this country. At Liverpool the trade may be said to be slightly easier, but on the continent the demand is still healthy and the wheat in stock and abroad does not appear ample to satisfy the trade until harvest time. Crop conditions in Europe have slightly improved. The bullish side is strengthened, however, by a stronger tone in India and South America, as well as lighter offerings in Manitoba. In this country the crop in the southern zone of the winter wheat section seems to be past the period when damage from moisture and insects are probable, except, of course, the possibility of lowering the quality through excessive rains at harvesting time. Farther to the north, additional rains at this time would probably help the crop, although no serious damage is as yet reported. Probably spring wheat is suffering more than winter wheat because of the continuous dry weather. The government crop report places the condition of the winter crop above the normal condition by 6.3 points. One year ago the local price for No. 2 red wheat was \$1.18 3/4 per bu. Detroit quotations are as follows:

	No. 2	No. 1	July	Sept.
Thursday	1.05 1/2	1.04 1/2	91	90 1/2
Friday	1.06 1/2	1.05 1/2	91 1/2	90 3/4
Saturday	1.06 1/2	1.05 1/2	91 1/2	90 3/4
Monday	1.07 1/2	1.06 1/2	91 1/2	91 1/4
Tuesday	1.07	1.06	91	90 1/2
Wednesday	1.06 1/2	1.05 1/2	90 1/2	90

Chicago, (May 13).—No. 2 red wheat, \$1.05 3/4@1.06 3/4; July, 88 3/4; Sept., 88 1/2 c per bu.

New York, (May 13).—No. 2 red, \$1.14 f. o. b. afloat; May, 98 1/4; July, 96 3/4; Sept., 95 3/4 c per bu.

Corn.—The corn trade has increased in strength with wheat and shows an advance over the closing price of a week ago, fully recovering the decline of that period. Trading would likely have been attended with greater activities were it not for the fact that unusual weather conditions have favored the preparation of the fields for planting and enabled the farmers to rush work more rapidly than usual. It is also anticipated that heavier receipts will be forthcoming soon, due to the fact that farmers' work will be less crowding immediately following corn planting time. The offerings at Detroit are small. One year ago No. 3 corn was quoted here at 80c per bu. Local quotations for the past week are:

	No. 3	No. 3
	Corn	Yellow
Thursday	56	58
Friday	56	58
Saturday	56	58
Monday	56 1/2	58 1/2
Tuesday	57	59
Wednesday	57	59

Chicago, (May 13).—No. 2 corn, 56 1/2@57c; No. 2 white, 59 1/4@59 1/2c; July, 55 3/4; Sept., 56 3/4; Dec., 54 1/2 c per bu.

Oats.—This cereal shows comparatively more strength than either of the other two major grains. Although seeding was completed earlier than usual, dry weather has not allowed growth to go on as rapidly as would have been the case had more moisture fallen. There appears also to be an improvement in the demand. One year ago standard oats were selling at Detroit for 60c per bu. Local quotations for the past week are:

	Standard	No. 3
		White
Thursday	38 1/2	37 1/2
Friday	38 1/2	37 1/2
Saturday	38 1/2	37 1/2
Monday	40	39
Tuesday	40	39
Wednesday	40	39

Chicago, (May 13).—No. 2 white oats, 38 3/4; No. 3 do., 36 3/4@37 1/2c; standard, 38 1/4@38 3/4c; July, 35 3/4; Sept., 35 1/4c.

Beans.—There is practically nothing doing on the local market in this product and the quotations given are merely nominal. They are for immediate, prompt and May shipment, \$2.05 per bu. at country points.

Chicago, (May 13).—No change occurred in bean quotations here and the market is inactive. Pea beans, hand-picked, \$2.35@2.40; do. choice, \$2.30@2.35; do. prime, \$2.20@2.25; red kidneys, \$2.50 per bushel.

Clover Seed.—This market was regular and unchanged during the past week, prime spot and alsike both being quoted at \$13.25 per bu.

Toledo, (May 13).—While cash seed remains unchanged, bids for October delivery are higher. Cash is quoted at \$13.85; October, \$8.05; Dec., \$8; alsike steady at \$13.60.

Timothy Seed.—This market continues steady with prime spot quoted at \$1.75 per bu.

Toledo, (May 13).—An advance of 10c occurred in the local timothy deal, prime spot and May now being quoted at \$1.90; Sept., \$2 per bu.

Rye.—While prices are steady with a week ago, the market for this cereal shows a fair demand and limited offerings. No. 2 rye is quoted at 64 1/2 c per bu. At Chicago the same grade sold Tuesday at 62c per bu.

Barley.—In both Chicago and Milwaukee boards of trade this market shows

a slight narrowing of quotations; in the former they range from 47@67c per bu., while in the latter from 52@68c per bu.

FLOUR AND FEEDS.

Flour.—Jobbing lots in 1/2 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.—All grades rule steady with last week. 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.—Timothy grades are higher, while all other kinds continue steady. Choice timothy, \$17@17.50 per ton; No. 1, \$15@16; No. 2 and No. 1 mixed, \$13@14; No. 3 and No. 2 mixed, \$8@12; clover, \$7.50@11; alfalfa, choice, \$16@17; do. No. 1, \$14@15; do. No. 2, \$11@13 per ton.

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

Chicago.—Rye straw, \$8@9; oat, \$6.50@7.50; wheat, \$5.50@6.50 per ton

DAIRY AND POULTRY PRODUCTS.

Butter.—Butter values are holding up well, considering the fact that there is still a pretty liberal percentage of under-grade product offered. The demand is limited almost wholly to immediate needs, buyers for storage finding fault with both quality and price at present. Detroit jobbing prices, rule as follows: Fancy creamery, 28c; firsts, 27c; dairy, 22c; packing stock, 20c per lb.

Elgin.—Market firm at 28c.

Chicago.—While offerings are liberal and quotations a shade lower on nearly all grades, a firmer feeling is in evidence this week. Home consumption is good and outside buyers are showing more interest than in some weeks. Quotations are: Extra creamery, 27 1/2@27 3/4c; extra firsts, 27c; firsts, 26@26 1/2c; seconds, 24 1/2@25c; dairy extras, 26c; firsts, 25c; seconds, 24c; packing stock, 12@22c as to quality.

New York.—Market steady with values holding up well except on packing goods, which are lower. Quotations: Creamery extras, 28 1/2@29c; firsts, 27 1/2@28c; seconds, 26@27c; state dairy finest, 28@28 1/2c; good to prime, 26 1/2@27 1/2c; common to fair, 25@26c; packing, 21 1/2@23c as to quality.

Eggs.—Good eggs continue strong in all markets, the demand for storage purposes having a tendency to pull prices up a little. On the other hand, the proportion of ordinary stock is increasing, causing a widening of quotations and closer attention to candling and grading. In the local market values show another fractional advance, current offerings, candled, being quoted at 19 1/4c per doz.

Chicago.—Demand good for the better qualities, with prices a shade higher, especially on all offerings fit for storing. Ordinary stock rather slow. Miscellaneous receipts, cases included, are quoted at 16@18c; do., cases returned, 15 1/2@17 1/2c; ordinary firsts, 16 1/2@17 1/2c; firsts, 18@18 1/2c; storage packed, firsts, 19@19 1/2c per dozen.

New York.—Firm with good grades higher. Fresh gathered extras, 22 1/2@23c; fresh gathered storage packed, firsts, 21@22c; western gathered, whites, 20@20 1/2c.

Poultry.—Chickens reached a new high level late last week but the feeling is easier, due to more liberal receipts this week. Geese are quoted lower. Quotations are: Live.—Spring chickens, 18@18 1/2c; hens, 18@18 1/2c; No. 2 hens, 13@15c; old roosters, 13@17c; turkeys, 19@20c; geese, 14@14 1/2c; ducks, 18@20c per pound.

Chicago.—Market slow and without material change under an indifferent local demand. Quotations on live are: Turkeys, good weight, 15c; others, 10c; fowls, good, 16c; spring chickens, 30@32c; ducks, 15c; geese, full feathered, 19c; do. plucked, 7@8c per lb; guinea hens, \$4 per dozen.

Cheese.—New York flats and brick are quoted lower. Wholesale lots, Michigan flats, new, 13 1/2@14c; old, 16 1/2@17c; New York flats, new, 14 1/2@15c; old, 17@17 1/2c; brick cream, 13 1/2@14c; limburger 18@19c.

Veal.—Supply limited and demand good. Fancy, 12@13c; common, 10@11c.

Chicago.—Trade slow in the face of a good supply. Fair to choice, 80@110-lbs. 12@12 1/2c; extra fancy stock, 13@13 1/2c; fair to good chunky, 11 1/2@12c.

WOOL.

Boston.—The market has not changed during the past week. For normal seasons the month of May usually finds large numbers of agents of manufacturers and brokers in the fields drumming up sales, but with few exceptions it is not so for 1913; there are a few manufacturers who have men out buying, but the small way in which they are contracting indicates that purchases are not made for the purpose of piling up supplies. Immediate and the near future needs seem to be as far as makers of cloth are looking at present. This very situation is likely to improve the trade for the coming months as some of the leading dealers have remarked. There being no stock on hand manufacturers will need to buy more liberally than where they were better supplied, which should aid in keeping values above what they would be without the extra demand. Some buying is done in the fleece states with quotations around 18c for medium grades.

FRUITS AND VEGETABLES.

Apples.—This fruit is firm with prices unchanged. The small offerings of other fruits from the south are helping the deal. Detroit quotations are: Fancy, per bbl., \$2.50@3.50; ordinary, 75c@1.50 per bbl.

Chicago.—The best grades of apples are firm at steady values. Standard winter varieties, \$2@4.25 per bbl.

Potatoes.—This point continues to be well supplied with tubers, which are changing hands at last week's improved quotations. Michigan stock in car lots, 43@45c per bu.

Chicago.—An unexpected increase in receipts brought prices down from last week's level but at the lower figures the movement is good. The offerings average much better in quality than they did earlier. Fancy Michigan stock, 40@45c per bu; best Wisconsin, 35@45c; Minnesota, 35@40c per bu.

GRAND RAPIDS.

The butter and egg markets remain unchanged this week. Tuesday morning's market was the biggest of the season, with 175 loads offered and prices were as follows: Hay, \$11@14; potatoes, 40c; asparagus, \$1; pieplant, 35c; lettuce, 8c; spinach, 90c; parsnips, 30c. Beans are now quoted at \$1.50; red kidneys, \$1.70; wheat, \$1.03; oats, 38c; rye, 45c; corn, 59c per bu.

THE LIVE STOCK MARKETS.

Buffalo.

May 12, 1913.

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

Receipts of stock here today as follows: Cattle, 140 cars, hogs, 90 double decks; sheep and lambs, 100 double decks; calves 1750 head.

With 140 cars of cattle on our market here today, and 20,000 reported in Chicago and a lower market there, we have to quote all cattle weighing 1150 lbs. and upwards fully 25c per cwt. below last week. Cattle weighing from 1100 down, of good quality, sold generally about 10c below last Monday's prices. At the close of the market, however, about everything was sold, with the feeling about steady at the decline.

We quote: Best 1350 to 1500-lb. steers \$8.40@8.60; good to prime 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., \$7.25@7.75; medium butcher steers, 1000 to 1100, \$7.50@7.75; butcher steers, 950 to 1000, \$7.25@7.85; light butcher steers, \$7@7.25; best fat cows, \$6@7; butcher cows, \$5@5.75; light do., \$4.50@5; trimmers, \$3.50@4; best fat heifers, \$7.25@8; medium butcher heifers, \$6.75@7.50; light do., \$6.25@6.50; stock heifers, \$6@6.50; best feeding steers, dehorned, \$7.50@7.75; light common stockers, \$6@6.50; prime export bulls, \$7.25@7.50; best butcher bulls, \$6.75@7.25; bologna bulls, \$6.75@7.25; stock bulls, \$5.50@6; best milkers and springers, \$7.50@10; common kind do., \$4@6.

Our hog market today was a little bit lower than the best time of Saturday, with a fair supply, about 90 double decks. Hogs weighing around 190 lbs. and upwards sold at \$8.75 generally. Selected lights, \$8.80@8.85; pig stuff generally \$8.85; few lights up to \$8.90; roughs, \$7.40@7.60; stags, \$6.50@7. Demand strong for light hogs and this kind closed strong with a good clearance.

The sheep and lamb market was slow today, with prices about the same as the close of last week; most of the choice handy lambs selling from \$7.90@8. Lambs weighing 85 to 90 lbs. very slow, \$7.65@7.85. Best wethers selling mostly at \$6; ewes, \$5@5.25, owing to weight and quality. Look for about steady prices the balance of the week.

We quote: Choice lambs, \$7.90@8; cull to fair do., \$4@7.75; yearlings, \$6.50@7; bucks, \$3@4.50; wethers, \$5.75@6; handy ewes, \$5@5.25; heavy do., \$5@5.25; cull sheep, \$3@4; veals, choice to extra, \$9@9.50; fair to good, \$7@8.50; heavy calves, \$4.50@6.

Chicago.

May 12, 1913.

Cattle. Hogs. Sheep.
Received today 20,000 42,000 16,000
Same day last year..... 11,065 44,612 21,357
Received last week..... 47,718 119,714 86,745
Same week last year..... 56,049 109,074 55,518

This week opens today with plenty of cattle to meet trade wants, and prices are no more than steady. Hogs are fairly active, prices ruling about a nickel lower early, but firming up later on increased buying. The best hogs brought \$8.50. The average weight of last week's receipts declined to 239 lbs., compared with 245 lbs. the preceding week. The average was 227 lbs. one year ago, 239 lbs. two years ago and 234 lbs. three years ago. Sheep and lambs are fairly active at unchanged prices.

Cattle receipts on Monday last week were unusually light, because of a bad break in prices the previous week, the run being 19,190 head, in place of the usually liberal receipts the first of the week. This caused a rise of a dime in prime beefs, with sales of 248 head of heavy cattle at \$9 and 40 fancy steers at \$9.10. Otherwise the cattle market was no more than steady, and the demand was quite moderate. Wednesday saw a run of 20,359 head, and it was too large for the demand, prices ruling largely 10@15c lower, while some sales looked as much as 25c lower, but fancy yearlings that tipped the scales at 1,134 to 1,139 lbs. brought \$9 and \$9.05, and 16 branded steers that averaged 1,481 lbs. sold at \$9. The market for fancy cattle, whether heavy or light in weight, has been a strong one, the demand being large enough to take the comparatively moderate offerings of such stock, but other offerings ruled weak most of the time, and

there was a further decline on Thursday of about a dime. Conditions are such that what in past years were only normal receipts of cattle cannot now be disposed of without weakening prices, for beef is a dear article of food, and eggs and vegetables are largely eaten as substitutes. Beef steers sold last week largely at \$7.75@8.75, with the best class of heavy steers taken at \$8.50@9.10 and the common to medium class of light steers at \$7@8, medium to prime yearlings bringing \$8@9.05, while butchering cows and heifers brought \$5.10@8.50. Cutters brought \$4.50@5, canners \$3.40@4.45 and bulls \$5.50@7.75. Only moderate trading was seen in stockers and feeders, the former going at \$6.25@8 and the latter at \$7.20@8, while stock and feeder cows and heifers were scarce and firm at \$5.60@6.65. Calves found buyers at a range of \$5@9.25 per 100 lbs. for coarse heavy to prime light vealers, and milch cows sold moderately on the basis of \$50@100 each, few being offered choice enough to bring as much as \$75. During the latter part of the week beef cattle sold largely 25@35c lower than on Monday.

Hogs have shown for another week much the same characteristics as have featured the market for so long, with no particularly large supplies and a restricted eastern shipping demand that meant no strong competition between buyers. As a general rule hogs do not advance in value when the Chicago packers are in a position to dictate terms, and there is no reason, so far as can be seen now, for expecting any marked improvement in prices. Recent purchases by eastern shippers have been even smaller than usual, and advancing prices even on small receipts was difficult for owners. Stockmen generally are making their hogs good and fat, there being every inducement to do so, with corn everywhere plentiful and cheap and hogs bringing much higher prices than in other years at this time, 1910 excepted. Warmer weather has checked consumption of fresh pork, but cured hog meats are having a fair sale, and stocks of provisions in western warehouses the first day of the month were down to 227,000,000 lbs., compared with 330,000,000 lbs. a year ago, having undergone reductions of 14,132,000 lbs. in April, against reductions of 7,384,000 lbs. a year ago for the same time and an increase of 19,920,000 lbs. in April two years ago. At the week's close hogs sold at \$7.95@8.55 for the poorest fat packers to the best light shipping lots, stags going at \$8.50@8.75 and boars at \$3.50@4.50. Only 14,283 hogs were shipped from Chicago during the week, against 26,351 a week earlier and 32,613 a year ago. Light hogs and medium butcher weights sold the highest.

Sheep and lambs suffered severe reductions in prices at different times last week, with increased offerings at a time when demand was by no means correspondingly large. Even the best offerings did not move very briskly as a rule, with the best demand centering, as usual, in prime handy-weight lambs, while heavy lambs sold unsatisfactorily. Slumpy markets for dressed sheep and lambs made bad markets for live offerings and there was an especially poor outlet for the increased showing of trashy stuff offered. There was a steady increase in the proportion of clipped stock, which was preferred by slaughterers to woolled flocks. A very few spring lambs have been offered and sold at \$10 per 100 lbs. Prices for sheep and lambs declined largely 25@40c last week, prices for clipped lots closing as follows: Lambs, \$6.35@7.60; yearlings, \$5.75@7; wethers, \$5@6.60; ewes, \$4.25@6.35; bucks, \$4.25@5.75.

Horses were much less active last week than in recent weeks, the spring trade being largely over, although a spurt of life was furnished by the special sale of about 60 head of harness horses and saddlers at auction, a good many buyers showing up. Sales ranged up to \$1,500, with popular prices for pairs from \$600@750. Farm workers had a moderate sale around \$140@225 per head, with good to prime mares wanted at \$230@285. Drafters were salable at \$225@300, with some of the horses quoted around \$300 sold at losses. Fancy extra heavy drafters were largely nominal up to \$350. Inferior to fair horses went at \$85@125, and 1,250 to 1,350-lb. chunks sold at \$185@250.

LIVE STOCK NEWS.

Advices from various cattle feeding districts indicate fairly large cattle supplies for May and June. Most reports say there is no scarcity, and distillery cattle will be marketed extensively in these months. This does not point to better prices for cattle, and stockmen should use conservatism in marketing their holdings so as to avoid over-supplies and breaks in values. Later in the year packers will depend largely on grass-fed cattle, and then a deficiency in the supply of corn-fed cattle may be looked for, as well as inadequate offerings of grass stock, there being a shortage in pastures west of the Missouri river. The aggregate receipts of cattle in Chicago, Kansas City, Omaha, St. Louis, St. Joseph and Sioux City for the first four months of the year were 2,185,000 head, compared with 2,294,000 received in the same period last year, a falling off of 109,000 head.

With pastures and meadows in remarkably fine condition pretty much everywhere, farmers who are short of cattle are extremely desirous of buying some to eat the grass, and buying orders in western markets have been numerous much of the time in recent weeks. The scarcity of well-bred young cattle on the stocker and feeder order is the only drawback, this leading to their being held at extremely high prices—higher figures than seem safe to pay. In fact, the choicer cattle of this class have been selling relatively higher than finished beef cattle, and it is extremely doubtful how much longer the current prices will prevail for choice beefs.

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 8, 1913.

Cattle.

Receipts, 1232. Market 10@15c lower than last week on all grades.

We quote: Best steers, \$7.75@8; steers and heifers, 1000 to 1200, \$7@7.75; do. 800 to 1000, \$6.75@7; do. that are fat, 500 to 700, \$6@6.50; choice fat cows, \$6.50@6.75; good do., \$5.75@6.25; common cows, \$5@5.25; canners, \$3.50@4; choice heavy bulls \$6.75@7; fair to good hognos, bulls, \$6@6.50; stock bulls, \$5.50@6; choice feeding steers, 800 to 1000, \$6.75@7.25; fair do., 800 to 1000, \$6@6.50; choice stockers, 500 to 700, \$5.50@6; fair do., 500 to 700, \$5@5.75; stock heifers, \$4.50@5; milkers, large, young, medium age, \$6@8; common milkers, \$4@5.50.

Bishop, B. & H. sold Sullivan P. Co. 40 steers av 1095 at \$7.85, 6 cows av 1037 at \$6.20 do av 650 at \$4.10 do weighing 1170 at \$4.25, 2 heifers av 765 at \$6.18 steers av 1056 at \$7.50; to Kamman B. Co. 15 do av 796 at \$7.25, 21 do av 860 at \$7.30; to Newton B. Co. butchers av 913 at \$7.20 cow and bull av 1310 at \$6.10 bull weighing 700 at \$5.17 butchers av 763 at \$6.85, 5 do av 772 at \$6; to Parker, W. & Co. 34 steers av 948 at \$7.50; to Rattkowsky 2 cows av 750 at \$5.25; to Rattkowsky 2 bulls av 1000 at \$6.50; to Cooke 17 steers av 874 at \$7.50, 1 do weighing 1180 at \$8.25; to Bresnahan 10 do av 700 at \$7.10; Rattkowsky 3 cows av 957 at \$6.25; to Mich. B. Co. 25 steers av 890 at \$7.40, 3 do av 1007 at \$7.40, 11 butchers av 703 at \$6.90, 5 do av 754 at \$7.10, 1 cow weighing 1150 at \$6.25; to Davenport 5 stockers av 760 at \$6.65, 2 do av 745 at \$6.50, 2 do av 693 at \$6.65; to Sullivan P. Co. 2 cows av 1170 at \$6.25, 8 butchers av 915 at \$7.40; to Schuer 2 cows av 825 at \$5.30, 3 do av 897 at \$5.10 do weighing 1140 at \$5.10, 3 do av 1013 at \$4.75; to Parker, W. & Co. 14 steers av 920 at \$7.50, 1 bull weighing 1170 at \$7.50 cows and bulls av 1096 at \$6.50; to Nagle P. Co. 5 bulls av 1182 at \$6.65.

Haley & M. sold Mason B. Co. 20 steers av 1010 at \$7.65; to Sullivan P. Co. 9 do av 708 at \$7.10, 3 cows av 1003 at \$6.25; to Hirschleman 2 heifers av 575 at \$6.85, 1 do weighing 780 at \$6.65, 9 butchers av 935 at \$7.60; to Mich. B. Co. 8 steers av 849 at \$7.65; to Scham 2 cows av 695 at \$4.80; to Marx 5 steers av 926 at \$7.25, 13 do av 973 at \$7.45; to Davenport 1 stocker weighing 530 at \$6.25, 3 do av 510 at \$5.50, 10 do av 620 at \$6.60; to Schuer 4 cows av 917 at \$5; to Rattkowsky 1 bull weighing 880 at \$6.50, 6 cows av 1140 at \$6.05; to Sullivan P. Co. 2 bulls av 920 at \$6.25, 1 do weighing 1430 at \$6.75.

Roe Com. Co. sold Sullivan P. Co. 4 cows av 1030 at \$6.15, 1 do weighing 890 at \$4.25; to Wyness 1 bull weighing 1000 at \$6.75; to Nagle P. Co. 12 steers av 887 at \$7.65; to Kamman B. Co. 6 cows av 1065 at \$6.25, 1 do weighing 1100 at \$6.25; to Rattkowsky 1 bull weighing 1000 at \$6.50, 1 steer weighing 1070 at \$7.60, 1 do weighing 700 at \$7.25; to Bresnahan 4 heifers av 690 at \$6.60; to Potts 3 canners av 927 at \$4.90; to Parker, W. & Co. cows av 1014 at \$6.25, 1 canner weighing 710 at \$4, 1 cow weighing 950 at \$6.25, 2 steers av 715 at \$7, 3 cows av 727 at \$4, 2 bulls av 960 at \$6.50; to Newton B. Co. 9 butchers av 984 at \$7.40.

Allington sold Parker, W. & Co. 2 bulls av 1390 at \$6.75.

Spicer & R. sold Newton B. Co. 1 cow weighing 1160 at \$6.50, 20 steers av 922 at \$7.50, 7 butchers av 857 at \$7; to Sullivan P. Co. 10 cows av 1023 at \$5.90, 1 do weighing 1210 at \$5.90, 2 bulls av 1320 at \$6.65, 2 cows av 925 at \$5.75, 1 do weighing 1040 at \$6; to Goose 4 do av 980 at \$5.65; to Mich. B. Co. 14 steers av 1019 at \$7.40, 14 do av 944 at \$7.40; to Rattkowsky 11 do av 977 at \$7.60, 2 bulls av 1050 at \$6.50; to Mich. B. Co. 5 butchers av 884 at \$6.75, 2 cows av 1220 at \$4.25; to Bresnahan 11 butchers av 650 at \$6.60; to Newton B. Co. 2 cows av 1100 at \$5.25; to Parker, W. & Co. 2 do av 1265 at \$6.50.

Allington sold Bresnahan 8 canners av 800 at \$4.90.

Sandall sold same 44 stockers av 532 at \$4.60.

Sharp sold Mich. B. Co. 2 steers av 1160 at \$8.25, 28 do av 1134 at \$8, 1 bull weighing 1440 at \$6.75, 7 cows av 974 at \$6.25.

Allington sold same 19 cows av 947 at \$5.50.

Besancon sold Newton B. Co. 11 steers av 874 at \$7.

Haddrell sold Mason B. Co. 1 bull weighing 947 at \$7, 1 cow weighing 760 at \$4, 2 do av 960 at \$4.50, 3 do av 940 at \$6, 1 do weighing 1160 at \$7, 18 butchers av 766 at \$7.25.

Veal Calves.

Receipts, 637. Market steady at last week's prices. Few choice at \$9.50; good \$8.50@9; common, \$4.50@7; milch cows and springers strong.

Bishop, B. & H. sold Sullivan P. Co. 8 av 150 at \$8.50, 4 av 140 at \$8.25, 1 weighing 90 at \$8, 3 av 130 at \$9, 6 av 135 at \$8.75; to McGuire 14 av 140 at \$9.25, 2 av 145 at \$9; to Goose 23 av 130 at \$8, 1 weighing 260 at \$4.50, 1 weighing 70 at \$4.50; to Sullivan P. Co. 2 av 95 at \$7, 6 av 145 at \$9, 2 av 130 at \$7.50, 5 av 155 at \$9, 16 av 135 at \$8.25; to Goose 14 av 130 at \$9; to Rattkowsky 2 av 150 at \$9.50; to Newton B. Co. 5 av 120 at \$8.50; to Mich. B. Co. 22 av 135 at \$9;

to Thompson Bros. 11 av 140 at \$9; to Rattkowsky 2 av 120 at \$9, 21 av 130 at \$8.75, 1 weighing 80 at \$7; to Hammond, S. & Co. 19 av 140 at \$9.50, 12 av 135 at \$9; to Burnstine 22 av 145 at \$8.90; to Nagle P. Co. 24 av 140 at \$8.75; to Hammond, S. & Co. 14 av 150 at \$9.50, 44 av 135 at \$8.75; to Burnstine 12 av 140 at \$9.

Haley & M. sold D. Goose 15 av 140 at \$9.25; to J. Goose 16 av 135 at \$9, 9 av 135 at \$9; to Newton B. Co. 8 av 150 at \$9.25; to Burnstine 6 av 135 at \$9.25.

Bennett & S. sold Newton B. Co. 3 av 145 at \$8.50.

Weeks sold Burnstine 4 av 145 at \$9.25, 1 weighing 260 at \$5.50.

Groff sold same 9 av 140 at \$9.50.

Roe Com. Co. sold Newton B. Co. 17 av 140 at \$9.

Haddrell sold Thompson 4 av 120 at \$7, 11 av 135 at \$9.

Sheep and Lambs.

Receipts, 1223. Quality common, market about steady with last week. Best lambs, \$7.50; fair to good lambs, \$6.50@7.25; light to common lambs, \$4.50@5.50; fair to good sheep, \$4.75@5; culls and common, \$3@4.50.

Sheep closed 50c lower than last week's close; lambs steady with last week.

Bishop, B. & H. sold Fitzpatrick Bros. 2 lambs av 80 at \$7, 5 do av 48 at \$9.50; to Thompson Bros. 3 sheep av 90 at \$5.50, 13 do av 75 at \$3, 39 lambs av 55 at \$6.50; to Parker, W. & Co. 257 lambs av 83 at \$6.50; to Sullivan P. Co. 24 sheep av 75 at \$3.50; to Fitzpatrick Bros. 36 do av 70 at \$4.50, 7 yearlings av 100 at \$6, 78 lambs av 70 at \$7.25; to Hayes 53 do av 57 at \$6.75; to Barlage 22 sheep av 80 at \$4.50; to Young 37 lambs av 57 at \$7, 12 do av 60 at \$6; to Mich. B. Co. 81 do av 70 at \$7.30, 17 sheep av 80 at \$4, 12 do av 110 at \$4.25, 19 lambs av 65 at \$4.75.

Haley & M. sold Newton B. Co. 15 lambs av 50 at \$6.50, 5 sheep av 100 at \$4, 7 do av 75 at \$4.50, 23 lambs av 55 at \$7; to Goose 7 sheep av 100 at \$5; to Hammond, S. & Co. 60 yearlings av 105 at \$6.

Sandall sold Sullivan P. Co. 43 sheep av 70 at \$5.

Spicer & R. sold Newton B. Co. 70 lambs av 65 at \$7.35, 26 do av 85 at \$7.35; to Mich. B. Co. 36 do av 65 at \$7.15, 7 sheep av 85 at \$5.50, 23 do av 70 at \$4.50, 6 do av 95 at \$5, 5 lambs av 80 at \$7.40, 22 sheep av 110 at \$5.25; to Costello 48 do av 55 at \$3.50, 29 lambs av 60 at \$4.75.

Hogs.

Receipts, 4249. None sold up to noon; looks as follows:

Range of prices: Light to good butchers, \$8.35.

Bishop, B. & H. sold Hammond, S. & Co. 3675 av 190 at \$8.30.

Roe Com. Co. sold Sullivan P. Co. 625 av 180 at \$8.30.

Sundry shippers sold same 410 av 190 at \$8.30.

Spicer & R. sold Parker, W. & Co. 470 av 180 at \$8.30.

Haley & M. sold same 560 av 170 at \$8.30.

Friday's Market.

May 9, 1913.

Cattle.

Receipts this week, 1558; last week, 1224. Market steady at Thursdays' prices. We quote: Best steers and heifers, \$8; do. 1000 to 1200, \$7.40@7.75; do. 800 to 1000, \$7@7.50; do. that are fat, 500 to 700, \$6@6.75; choice fat cows, \$6.50@6.75; good do., \$6@6.50; common do., \$5@5.50; canners, \$4@4.50; choice heavy bulls, \$7; fair to good hognos, \$6.50@6.75; stock bulls, \$5@6; choice feeding steers, 800 to 1000, \$6.50@7; fair do., 800 to 1000, \$6@6.50; choice stockers, 500 to 700, \$5.75@6.25; stock heifers, \$5@6; milkers, large, young, medium age, \$6@8; common milkers, \$4@5.50.

Receipts this week, 1121; last week, 1350. Market steady at Thursday's prices. Best, \$8.75@9.25; others, \$4.50@8.

Milch cows and springers steady.

Sheep and Lambs.

Receipts this week, 2533; last week, 3106. Market steady; run very light. Best lambs, \$7.35@7.50; fair to good do., \$6.25@7; light to common do., \$4.75@5.50; fair to good sheep, \$4.50@5; culls and common, \$3@4.

Hogs.

Receipts this week, 7784; last week, 7980. Market 10c higher than on Thursday. Range of prices: Light to good butchers, \$8.40; pigs, \$8.40; light yorkers, \$8.40; stags one-third off.

CROP AND MARKET NOTES.

Sanilac Co., May 9.—Two weeks have passed since we have had any rain. The ground is pretty dry but still the oats are growing good; all sown and mostly all up. Meadows are growing but would do much better with a good shower. Spraying is one of the many jobs the farmer finds to do and is not neglected to any great extent. Some varieties of apples are well loaded with blossoms, others have very few. Peaches and cherries are covered with flowers also. The greatest scarcity in years for hogs is at the present time and sheep will also soon be a thing of the past, seemingly. Farmers are awakening to the necessity of the protection of the song bird, for no estimate can be made of the good they do. All grains are at about the same level of prices. Eggs hold at 16c; butterfat has dropped to 28c in creameries. It now appears that considerable of the 1912 hay crop will be kept over until fall.

Indiana.

Laporte Co., May 7.—Heavy frost this morning with ice in water trough; mercury at 30 degrees. Fruit trees in full bloom. Farmers busy plowing for corn. Very dry and hard plowing, only light sprinkle of rain the past two weeks. Corn planting will be delayed until May 20 and later. Fruit trees begin to show green. Stock on pasture, but not full feed. Pig crop is an average.

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.

Hernia.—Tell me how to reduce a rupture on side of cow. Bunch about as large as a base ball, yields readily to pressure, but returns as soon as pressure is released. The rupture came as a result of an abscess which broke and discharged pus. W. E. P., Vandalia, Mich.—If the rupture is doing no harm, better leave it alone. The only way it can be reduced is by a surgical operation.

Enlarged Gland.—I have a four-year-old cow that has a large loose bunch the size of a goose egg under jaw. H. C. K., Elkton, Mich.—Apply one part iodine and ten parts fresh lard to bunch in throat once a day, and if it softens, open it. Then inject one part carbolic acid and 20 parts water into sack twice a day.

Weaning Pigs.—Will it injure a sow to take away pigs at once and wean them, or should one or two pigs be left with her for a few days? G. K., Merrill, Mich. If the sow is a big milker, it is better to leave one or two pigs with her for a few days or let the whole litter nurse for a few minutes every day or two until she dries.

Thumps.—I have a few small pigs that commenced to have thumps when they were three months old. The mother commenced eating her pigs, therefore we took them from her and raised them by hand. They are now fed ground feed and milk; besides, they run on grass. Mrs. C. O., Adrian, Mich.—I am inclined to believe your pigs suffer from indigestion, which is affecting their heart action. Feed less corn and more oats for the next ten days and give each of them a half teaspoonful of cooking soda and a teaspoonful of powdered charcoal in feed two or three times a day. If they are very fleshy, reduce them.

Navel Infection.—My ewes appear to be healthy, lamb all right, but the lambs seem to sicken when four or five days old and become quite stiff, weak and die in ten days or two weeks. H. S., Marshall, Mich.—If you will treat the navels of your lambs at birth, few, if any, of them will die. Apply to navel tincture iodine and tie cord; also apply one part carbolic acid and ten parts glycerine to navel once a day. Two or three applications of iodine is all that will be necessary.

Crop-bound.—I have a disease in my flock of hens that baffles me. The chickens commence clucking just as though they had a brood of chicks, but eat good. Sometime later they commence and run down, losing flesh and strength until they die. M. W., Allenton, Mich.—Give your chickens two tablespoonsful of olive oil every three or four hours until their bowels act fairly free. If you will feed them plenty of grass and keep their bowels open, I believe they will be all right.

Chronic Diarrhea.—I wish you would tell me what to do for my cats. Several of my best cats have died the result of chronic purging. Mrs. D. H., Rives Junction, Mich.—Give your cats each one grain of powdered kamala to each pound of their weight at a dose once a week. Also give each one one grain of salol at a dose three times a day.

Bruised Udder.—Bloody Milk.—I owned an ugly cow, but before I sold her she injured udder of another cow and she gives bloody milk. J. R. C., Vermontville, Mich.—Apply one part fluid extract of arnica, and four parts water to bruised udder twice a day. Milk her carefully. For grubs in the back open skin, squeeze out grub, kill them, and apply boracic acid to sores twice a day.

Tongue Lolling.—I have a driving mare who persists in keeping tongue over bit when driving and I would like to know if there is a way of stopping it. J. M. V., Linesville, Pa.—There are several kinds of bits that will remedy this trouble. A crooked bar bit, a spoon bit or an oval shaped piece of iron fastened to center of bar bit works very well. A vice of this kind can only be overcome by experimenting with different kinds of bits. The bit should be pulled up reasonably high in mouth in order to prevent her placing tongue over it.

Horse Ate Paris Green.—I have a seven-year-old horse that ate a teaspoonful of Paris green; this accident occurred last September and our local Vet. was called, but failed to help him much. When worked he scoured and is losing flesh. This same horse has a habit of hanging out tongue. C. M. C., Centerville, Mich.—Give your horse 2 drs. of iodide of potash at a dose in feed or water two or three times a day.

Navel Infection.—When my calves are about a day or two old they commence to scour, and I am unable to figure out what causes their sickness. I am inclined to believe that the one takes it from the other. The one that died had a great deal of pain. W. H. S., Gladwin county, Mich.—As soon as calf or colt is born, the navel cord should be tied and treated much the same as a wound. Apply tincture iodine to end of cord after it is tied once a day; also apply one part bichloride mercury, 1,000 parts water to navel twice a day. Many of the home-healing remedies are proper ones to apply in this case.



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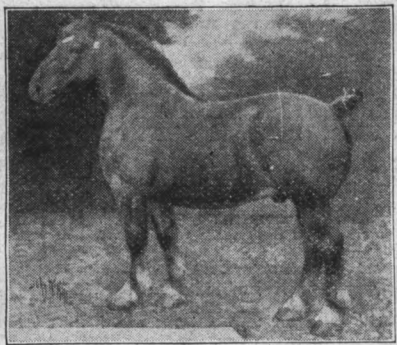
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supply you send \$1.75 for \$2 packet. Shipments
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cures scab, mange and all parasitic
skin diseases. Is just the thing
to put in the hog wallow. Keeps
its strength and hogs can free
themselves of lice, at the same
time heal and prevent skin
diseases. Besides

Dr. Hess Dip and Disinfectant

cleans up and purifies the premises. It
should be sprinkled in the poultry house
and yard, poured into sinks, drains, and
used everywhere where filth accumu-
lates. It has hundreds of uses and
should be kept in every home. It
is absolutely uniform in strength,
meets the U. S. Government re-
quirements as an official dip for
sheep scab, is non-poisonous
—and costs nearly nothing.
One gallon makes
50 to 100 gallons of
solution.



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Reducing Distributing Costs.

By DR. CLYDE L. KING.

IT costs more to distribute food prod-
ucts than it costs to raise them. To
put it the other way, the farmer gets
for his produce less than one-half what
the consumer pays for it. Just here is
the proper point of attack in the much-
mooted cost of living problem. So long
as this situation continues, it ill-behooves
the city dweller to talk about the ineffi-
ciency of the farmer. It is the city that
needs to clean house.

As given in greater detail in preceding
articles, the method of distributing food
products that fixes producers' and con-
sumers' prices is as follows: First, the
professional huckster or commissioned
agent buys from the farmer to sell to the
wholesale merchant. He is paid for his
services by buying as far below the
wholesale price as possible. At a mini-
mum, he increases the total cost of the
goods from nine to 25 per cent. There is
then added from one to 20 per cent to the
cost of the goods in freight to the
wholesale terminal. Then the wholesaler
deducts from five to 10 per cent for sell-
ing to the retailer, thereby adding on the
average around 11 per cent to the job-
ber's price. Then, for handling the goods
and selling them to the consumer, the
retailer charges from 30 to 100 per cent
increase of the wholesaler's price, on an
average 45 per cent. In addition, there
is frequently, between the wholesaler and
the retailer, at least one jobber, and of-
ten two. There is a natural tendency for
the jobber to pay as little as he can; for
the wholesaler to buy goods as low class
and sell them as good class; for the re-
tailer to boost prices up to where they
will secure maximum returns.

A city store-man recently said to me,
"Why spend time or thought about what
the farmer can get for his produce? He is
just like the rest of us. He is out for all
he can get." To be sure he is. However,
there is this significant difference be-
tween the farmer's ability to boost his
prices and the retailer's and the commis-
sion merchant's power to manipulate
prices: The forces fixing the farmer's
price are nation-wide in operation, and
hence a single farmer, or, indeed, all of
the farmers of a given state, can have
comparatively little effect upon that price.
But the wholesaler's misrepresentations,
the prices paid by the retailer, the
amount of food held back or destroyed,
on the other hand, are determined by lo-
cal situations, not by national forces.

Can this method of distribution be
simplified, and can distributed costs be
lowered? This question can be most
thoroughly answered by resolving it into
three questions: (1) Can the wholesaler's
commission be lowered, and wholesale
abuses prevented? (2) Can the retailer's
profits be reduced and their abuses abat-
ed? (3) To what extent and how can the
middleman be eliminated so that the pro-
ducer may sell as direct as possible to
the consumer?

1. Can Wholesaler's Commission be Low- ered and Abuses Prevented?

Through the elimination of the risks
due the method of assembling and dis-
tributing farm products, as shown in the
first of these articles, it is only reason-
able to expect that the commission charg-
ed by the wholesale merchant or the
profit made by the wholesale jobber
should be decreased. There is some evi-
dence to indicate that there has been a
light diminution in such commissions and
profits. But numerous other abuses have
arisen, none of which need to be enu-
merated to farmers. Farmers are already
too familiar with such practices as re-
porting goods to be sold as low grade
when they were sold as high grade; re-
porting half the chickens dead when but
five per cent were dead, and the making
of improper returns.

Another practice is to lower the pub-
lished quotations on goods sold, so that
it appears one or two cents below the
price at which sales were actually made.
This fact was brought out in the recent
action of the federal government in im-
posing a fine on the market commission
of Kansas City. Still another practice is
to misrepresent time of a sale. For in-
stance, if potatoes sell at 35 cents a
bushel in the morning, and the price
rises in the afternoon to 38 cents, the
commission man reports sales as occur-
ring in the morning, and pockets the
difference.

There is at hand a means by which
such abuses may be reduced to a mini-
mum. This method has been adopted in
Texas, Oregon, Washington and Minne-

sota. Under it the wholesaler must ob-
tain a license from some state authority,
filing a bond to the state for the benefit
of consignors. Under the Minnesota law,
the commission merchant must indicate
the exact minute and hour of the day
when the sale was made. This was to
avoid the abuses as to depressed quota-
tions just indicated. Of particular im-
portance are the provisions of the Wash-
ington law authorizing the Commissioner
of Horticulture to hear and pass upon any
complaints by farmers; requiring the
books of such concerns to be kept open
for inspection by the secretary, who also
has plenary powers of regulation and
supervision. This law gives to the farm-
er a direct and inexpensive method for
ferreting out to what extent he has been
injured and for securing compensation
for such injuries.

There is now before the Pennsylvania
Legislature, a bill providing for the li-
censing and bonding of persons engaged
in selling agricultural products on com-
mission. If payment for agricultural prod-
ucts consigned to such merchants shall
not be made within 30 days after the re-
ceipt of same, the farmer may enter suit
in any court for the recovery of sums
due him. This act is good, so far as it
goes, but it does not go far enough. It
protects the farmer from absconding or
defaulting wholesale merchants. It also
protects the good name and business of
the reliable commission man. It is spe-
cifically weak, however, in that the farm-
er must first go before a court to secure
redress. This method of redress is too
costly. The course is open to the farmer
now. The only additional advantages
that the law gives is the bond, so that
the farmer may have something to levy
upon in case the commission merchant
does not have sufficient property in his
own name. The act is also inadequate
because it does not give the Secretary of
Agriculture power to inspect the books.
That is, the machinery for redress is so
cumbersome and expensive that the small
farmers usually can not afford to go
through the process. It might just as
well have been made an administrative
matter, and the Secretary of Agriculture
given adequate power in the premises.
Such laws elsewhere have met the approv-
al not only of the farmers but also of re-
liable commission men as well.

Another remedy is to put terminal
wholesale markets under the ownership
and control of the municipality. The
New York Market Commission is advo-
cating a wholesale terminal municipal
market for New York City. It believes
that such a market will save cartage ex-
penses; for there, as in Philadelphia,
large quantities of food supplies are car-
ried past their point of destination to a
distributing center and then back again.
In Philadelphia, the farmer who comes
to the city to dispose of his products at
Vine or Dock Street wharf, drives 10
miles through the heart of the city. His
goods are then purchased by a vendor
who drives back the ten miles and sells
them to the consumers along exactly the
same road that the farmer passed. Ade-
quate terminal wholesale facilities might
do away with some of this extra cartage,
although it will also add to it in other
respects.

The terminal wholesale municipal mar-
ket would provide a conspicuous place for
producers to send to and an economic
stand so that they can sell cheaper, make
it possible for licensed gardeners and
farmers to sell their articles of food, re-
duce the cost of distribution, provide
sanitary conditions for handling food-
stuffs, permit segregation of live poultry,
provide for storage of food in time of
plenty against a time of scarcity, elimi-
nate two classes of middlemen between
the producer and consumer, and put the
control of the food supply under the pub-
lic authority.

(Continued next week).

PAYING CROPS ON THE FARM.

The success of the farm depends upon
the crops that pay. If interested in Al-
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Rape, Good Seed Corn, Vetches, Good Seed
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Mention the Michigan Farmer.—(Adv.)

NATIONAL CROP REPORT.

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

On May 1 the area of winter wheat to be harvested was about 30,938,000 acres, or 4.5 per cent (1,449,000 acres) less than the area planted last autumn, but 16.4 per cent (4,367,000 acres) more than the area harvested last year, viz., 26,571,000 acres.

The average condition of winter wheat on May 1 was 91.9, compared with 91.6 on April 1, 79.7 on May 1, 1912, and 85.6 the average for the past ten years on May 1.

A condition of 91.9 per cent on May 1 is indicative of a yield per acre of approximately 16.6 bushels, assuming average variations to prevail thereafter. On the estimated area to be harvested, 16.6 bushels per acre would produce 513,571,000 bushels, or 28.4 per cent more than in 1912, 19.3 per cent more than in 1911, and 18.3 per cent more than in 1910. The out-turn of the crop will probably be above or below the figures given above according as the change in conditions from May 1 to harvest is above or below the average change.

The average condition of rye on May 1 was 91.0, compared with 89.3 on April 1, 87.5 on May 1, 1912, and 89.6, the average for the past ten years on May 1.

The average condition of meadow (hay) lands on May 1 was 88.5 compared with 85.7 on May 1, 1912, and a ten-year average on May 1 of 88.5.

Stocks of hay on farms May 1 are estimated as 10,828,000 tons (14.9 per cent of crop), against 4,744,000 tons (8.6 per cent) on May 1, 1912, and 8,673,000 tons (12.6 per cent) on May 1, 1911.

The average condition of pastures on May 1 was 87.1, compared with 81.7 on May 1, 1912, and a ten-year average on May 1 of 86.1.

Of spring plowing 67.2 per cent was completed up to May 1, compared with 52.8 per cent on May 1, 1912, and a ten-year average on May 1 of 65.7.

Of spring planting 57.0 per cent was completed up to May 1, compared with 48.9 per cent on May 1, 1912, and a seven-year average on May 1 of 54.3.

MICHIGAN CROP REPORT.

Wheat.—The condition of wheat is 83 in the state, 84 in the southern counties, 81 in the central counties, 85 in the northern counties and 87 in the upper peninsula. The condition on April 1 was 82 in the state, 83 in the southern counties, 79 in the central counties, 80 in the northern counties and 94 in the upper peninsula. The per cent of wheat that will be plowed up because winter killed or otherwise destroyed is 4 in the state, southern and northern counties, 7 in the central counties and 1 in the upper peninsula. The damage by Hessian fly, in per cent is 5 in the state, 9 in the southern counties and 1 in the central and northern counties.

Owing to the light yield and inferior quality of Michigan wheat for the year 1912, the grain suitable for milling and shipping is practically all marketed; consequently I think it unnecessary to ask the millers and grain dealers of the state for any more reports relative to wheat marketed by farmers until the month of August next, when the 1913 crop will be on sale.

Rye.—The average condition of rye in the state is 87, in the southern counties 89, in the central and northern counties 88 and in the upper peninsula 94. The condition one year ago was 81 in the state, 77 in the southern counties, 80 in the central counties, 88 in the northern counties and 96 in the upper peninsula.

Meadows and Clover.—The condition of meadows and pasture in the state and southern counties is 89, in the central counties 85, in the northern counties 88 and in the upper peninsula 95.

The acreage of clover sown as compared with last year is 94 per cent in the state, 96 in the southern counties, 92 in the central counties, 95 in the northern counties and 93 in the upper peninsula. The acreage of clover that will be plowed up because winter-killed or otherwise destroyed is 10 per cent in the state, 9 in the southern counties, 13 in the central counties, 8 in the northern counties and 3 in the upper peninsula.

Oats.—The acreage sown, or that will be sown, as compared with last year is 99 in the state, 98 in the southern and northern counties, 100 in the central counties and 105 in the upper peninsula.

Spring Pigs and Lambs.—The per cent of spring pigs saved as compared with 1912, is 89 in the state, 88 in the southern and central counties, 91 in the northern counties and 94 in the upper peninsula. The per cent of lambs saved as compared with 1912, is 93 in the state, southern and central counties, 91 in the northern counties and 98 in the upper peninsula.

Farm Wages.—The average monthly wages with board, is \$27.77 in the state, \$28.44 in the southern counties, \$26.55 in the central counties, \$26.59 in the northern counties and \$30.68 in the upper peninsula.

The average wages by the day without board is \$1.68 in the state, \$1.75 in the southern counties, \$1.58 in the central counties, \$1.57 in the northern counties and \$1.85 in the upper peninsula.

The average wages in the state last year, by the month with board was \$26.48 and the average wages by the day without board was \$1.59.

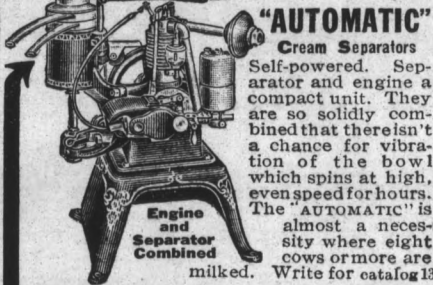
In 1904, ten years ago, the average wages in the state by the month was \$22.20 and the average wages by the day without board was \$1.34.

Fruit.—Reports from all sections of the state indicate a decided increase in the prospect of the various kinds of fruit over the 1912 report.

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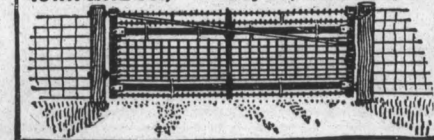
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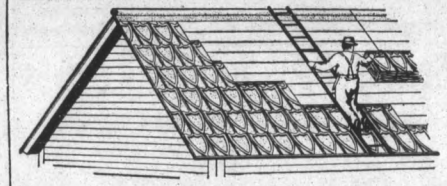
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Olive oil, when pure, is a very choice article of commerce, and with the increasing use of salads and the like, the demand for high grade olive oil has been rapidly and steadily increasing. There is also a very distinct difference among the different grades of olive oil, and one is apt to become prejudiced against the product if he does not come in contact with the very best grade. We believe that much of the adulteration of olive oil has been possible just because of a lack of general familiarity with the qualities of the best product.

Standards.

The standards which have been adopted by the United States Pharmacopoeia and the Food and Drugs Act, do not distinguish between the different grades of olive oil. Naturally this must be so, because these standards are concerned merely with the question of purity, and not with the question of excellency. The requirements of the United States Pharmacopoeia are as follows:

Specific gravity at 77 degrees F., should be between 0.910 and 0.915. Iodine value not less than 80 nor more than 88. Saponification value from 191 to 195. Readily soluble in ether, chloroform and carbon disulphide. Very slightly soluble in alcohol.

Source of Olive Oil.

Olive oil is the oil obtained from the sound, mature fruit of the cultivated olive tree. It should be free from any rancidity. Commercially, the best olive oil is known as virgin olive oil, and is taken from the first pressing of the carefully selected fruit. The oil is suspended in the fruit in a watery fluid and exists in the fruit to the extent of about 50 per cent. The lowest grade of oil is obtained from the olive pits or stones, sometimes obtained through pressure, and sometimes by the use of suitable solvents, such as gasoline or carbon disulphide.

As stated above, it is usually the lower grades of olive oil that are most subject to adulteration. There is no vegetable oil with which we are familiar that approaches the delightful flavor of the pure virgin olive oil. It is popularly supposed that the best grades of the oil are yellow in color. This is not true. The very purest virgin olive oil has a very light green color and its consistency is quite watery and free from the thick viscous nature of the lower and yellower and browner grades.

Cottonseed Oil an Adulterant.

The chief adulterant of olive oil has been until very recently, cottonseed oil, and we understand that it has been the practice to ship abroad from this country cottonseed oil, which was then refined in Italy and Spain and returned to this country either labeled as olive oil, or mixed as an adulterant with olive oil. The passing of the National Food and Drug Act has almost entirely done away with this practice, as the government inspectors at the ports of entry have made it very impractical for importers to handle this sophisticated article. Cottonseed oil is quite readily detected in the laboratory, and when it became inexpedient to adulterate olive oil with cottonseed oil, various other vegetable oils began to be introduced into the product, the principal one being peanut oil.

Peanut Oil is Now Used as an Adulterant.

Peanut oil is a very clever adulterant in connection with the product. The principal means of detecting it is by determining the amount of arachidic acid present in the oil. Here again, some gross and serious errors have been made in the laboratory in determining the presence of arachidic acid, and as a consequence,

reporting the oil as adulterated with peanut oil. The best for arachidic acid, while quite simple in so far as the technique described in text books is concerned, in reality requires a considerable degree of skill, especially in interpreting the results. After the arachidic acid has been isolated, the analyst should determine very carefully the exact melting point of the crystals before he should presume in any instance to pass judgment on the same. A very desirable way of analyzing olive oil is to carry along in each instance, under exactly the same conditions with the analysis, a sample of olive oil of known purity. In this way, the analyst is much less apt to pass snap judgment on the sample.

Among other adulterants of olive oil are sesame oil, rape seed oil, corn oil, coconut oil and certain animal oils, such as lard oil.

The Liking for Olive Oil May Easily be Acquired if One Selects the Best Grade.

Olive oil is being used quite largely as a diet correctant, and because of its pleasant and agreeable taste, it can be taken very regularly and one soon acquires a liking for it. To those who have tried without success, the taking of olive oil, we suggest that if they secure this oil to correspond with the general characteristics we have mentioned herein, it will be much easier to acquire the habit for olive oil. One may judge by the color and fluidity very closely regarding the purity of the oil. It should be light green in color, and very fluid without being viscid. On salads, such as lettuce and tomatoes, with pure aromatic cider or malt vinegar, and with pure spices, there is scarcely a more agreeable or palatable dish.

TUBERCULOSIS.

Some of the best work that has been done by those studying the relation of bovine to human tuberculosis is from Dr. Park and his associates. Dr. Park is connected with the Research Laboratory of the Department of Public Health of New York city. They have recently reported a study of 252 tuberculous children under five years of age, each case studied individually. Of these 252, there were 201 due to bacilli of the human type and 51 to the so-called bovine type of the tubercle germ; or about 20 per cent due to the bovine type. They have also completed a study of 1,511 cases of tuberculosis of all ages, the list including 478 cases of their own. Of this total number there were 368 cases among children under five years of age; and of these 368 cases 292 were due to germs of the human type, and 76 to the so-called bovine type of tubercle germs. If we accept the view that the germ from the human and the germ from the bovine are merely different varieties of the same germ, then, of course, human tuberculosis and bovine tuberculosis become identical. If, on the other hand, we hold to the view that there are two distinct types, then at the same time we must concede that the human being is susceptible to the bovine type, and that about 20 per cent of tuberculosis in children under five years of age is due to that germ.

On a recent report on the relative prevalence of human and bovine tubercle germs in bone and joint tuberculosis of children, there are included 70 patients, each one studied critically. All were children under 12 years of age except three. Of the 70 cases of bone and joint tuberculosis, the bovine variety of the germ was present in 41 cases and the human in 26. Both varieties were found in three cases. Where there were histories of tuberculosis in the families, 71 per cent of the cases were due to the human type. Where there was no family history, only 17 per cent were due to the human type, and about 82 per cent to germs of the so-called bovine type.

Statistics on a large average show that about two tuberculin reacting cows out of nine give virulent milk, capable of infecting experimental animals. The other seven cows give milk that does not at the time seem capable of causing such infection. There is no means, practical on a large scale, for detecting the cow that gives dangerous milk. Cows with tubercular udders practically all give virulent milk.—Minn. Ex. Bulletin No. 32.

Grange.

EXTENDING GRANGE USEFULNESS.
—III.

"The task of agricultural education will never be complete until we seek to reach the very last man on the farm with the best things," said President K. L. Butterfield, at Kalamazoo, in March, speaking to 300 people assembled to confer with him concerning rural affairs.

For 47 years the Grange has been concerned with the effort "to reach the last man on the farm with the best things." Sometimes it has led, again it has followed other institutions in the quest. There never was a time when it was nearer the goal; nor a time when it might see so clearly how distant is that same goal, as today. There is still a wide gulf between "the last man" and "the best things" agriculturally, albeit great movements are stirring to bring them together. Greatest of all present movements is that one which aims at co-operation which, in reality, includes all others of whatever name. And for co-operation in theory the Grange stands, if it stands for anything. The difficulty now is to assist in applying it practically so as to carry the "best things" into the byways to "the last man." It means working shoulder to shoulder with those we never have co-operated with both in and outside the Grange.

One form of possible co-operation which is tapping at our doors today is that of the county farm bureau. Great diversity of opinion is held by individual patrons, and exactly opposite actions are being taken by different Granges, which alone shows the need for thorough investigation and deliberate action on the subject. At best the whole matter is in a hazy state, so new that as yet it has taken no form that universally prevails.

It is certain that pure paternalism on the part of city business men will be resented by country business men. Just as certain is it that no one can possibly object to the farmers of a county forming an association among themselves for promoting the rural welfare of that county from any and every standpoint they may see fit. Both of these plans for farm improvement exist now, together with many other plans in between. Some counties hire a "secretary," "manager," "demonstrator," "agent," "expert,"—call him what you will—others do not. Where employed, in some instances this field man devotes special efforts to soil improvement, in some to alfalfa and forage crops, in some to seeking better markets and to standardizing the products offered for sale, in some he is active in strengthening and extending organizations among farmers. Varying forms of this idea have been variously launched—by the federal government, by agricultural colleges, by bankers, by city boards of trade, and by farmers alone. In all of these the Grange will find material for study and comparison.

Here, then, is a large opportunity for extending Grange influence outside its own borders, yet one which also concerns its membership vitally. If the county farm bureau, by and large, is a harmful proposition, the Grange should condemn it wholly after careful and full examination. If, however, it finds in the idea possibility of developing into a plan for "reaching the last man on the farm with the best things," the Grange ought undoubtedly to stand as a constructive agent in developing it to that end.

JENNIE BUELL.

Montcalm Pomona Remembers Sick Patrons.—A very interesting session of Montcalm Pomona Grange was held at Coral, April 17. Grange opened in the fifth degree and most of the morning was given to regular routine work. There were members present from eight subordinate Granges, and reports from ten subordinate Granges were given. Dinner was served by the ladies of Coral Grange, and in the afternoon Earl Johnson, of Butter-nut Grange, was elected press reporter. Ashley M. Berridge, worthy master of Pomona, by request gave a recitation that was very much enjoyed. The subject, "Agricultural Resources of Montcalm County," was discussed by Brothers Eli Boyer, Wesley Taylor and others. Some very interesting statistics as to the amount and quality of products raised in Montcalm county were given. "Has the Grange done its best work in Montcalm County up to date?" was generally discussed and it seemed to be the opinion of many members that, with higher development of the county, the Grange will continue to increase its usefulness. It was voted to send flowers to Henry Thornton, of Lakeview Grange, and to Mrs. Knapp, of Trufant Grange, both of whom are critically ill.—A. L. K.

Farmers' Clubs

CLUB DISCUSSIONS.

How the Ladies would Farm.—At the last meeting of the Conway-Handy Union Farmers' Club, of Livingston county, held with Mr. and Mrs. S. R. Holmes, on April 25, there was a large attendance, notwithstanding the busy season and its pressing work. The first topic, "How I would farm if I were a man," was handled in a very clever manner by Mrs. Alton Grant. She would, first of all, thoroughly acquaint herself with the soil of the land she was to work, carefully and thoroughly fit the soil for the crop, give special attention to securing the best seed, see to it that the crops were in on time, would have only such crops as could be cared for and harvested, would not farm with the idea that the dollar was the only thing to be obtained, would have a time to begin and a time to stop work and would not work too many hours, use up-to-date farm tools, and when not in use see to it that they were under shelter. Would keep pure-bred stock and a horse that all members of the family could drive, would have a good garden and plenty of small fruit for family use, would aim to have farm pleasant in appearance, would not depend on one thing alone for an income but would do general farming and try to have time for attending Farmers' Clubs and institutes. Mrs. Holmes, in discussing the topic, said she would not have too large a farm as there were so many big things to do that the many important little things were sorely neglected. She would have the farm named, would keep a book account. She thought the idea of specializing, to the neglect of other things, a poor one. Would provide a suitable place for small animals about the farm and aim to keep them in it, would keep tools sheltered and look after the care of small things, such as grain sacks, etc. Thought every farmer should consider it a duty to look after holes in the road and bridges near his home. Would wear clean clothes about farm work, would not work hard for 30 years and spend the first bank account for an automobile. Mrs. C. Gordon thought it advisable to pay hired man weekly or monthly, that he might have money to use when he wanted it without asking for it.

Co-operation Among Farmers.—Dr. Eben Mumford, of M. A. C., in charge of government farm extension work, was present and spoke on the above subject. In his opening remarks he expressed pleasure at being able to be present at such a gathering and said that the Farmers' Club movement was the most promising method of developing country life and bringing to it desirable social advantages lacking in the past. Lack of social advantages, due to unorganization, the only real disadvantage in country life. The independent life of the farm has made it difficult for organization but has developed a strong type of individual manhood. Organization and co-operation need to develop a strong community. Improved methods of communication and transportation are doing away with hitherto drawbacks to organization. If organization has been necessary to the development of the city where communication is easy, it surely is necessary to develop permanent agriculture. As an example, the secretary of a commercial club is employed to look after the general interest of members of the club. Farming is really the greatest of all kinds of business. Back of it are all the known sciences. The college has been storing up knowledge which it must now bring to the farmer through community organizations. Mr. Mumford explained why this was necessary now as never before. The United States census of 1900 showed only four per cent of all people in the cities. That of 1910, 50 per cent in cities of 2,500 inhabitants, thereby leaving only one-third of all people on farms to maintain the other two-thirds. The tide has turned since 1900, population has increased faster than products, farmer does not get his share of the advanced price. Need of organization in marketing shown in fact that the present cost of delivering to the consumer is more than first cost of producing. Must have a permanent agriculture. The accumulated knowledge of the college and experiment station hard to apply because farmers as a rule do not read bulletins or books. To get best results must be in personal touch with teacher. Movement must be regarded and maintained as a part of the educational system by the county, state and nation. At present most of the cost of maintaining is by the county. Thirteen counties in Michigan have organized. Best results to be obtained where there are township or community organizations closely in touch with county supervisor or organization. The duty of farmers, through organization, to control their products. Products belong to farmer until in hands of consumer.

Honors Even in Debate.—Mr. and Mrs. I. N. Taggett entertained the Indian-fields Farmers' Club in April, when only about 35 members were present, "spring work" detaining many at home. Vice-President R. W. Black presided over the business session. A good literary and musical program was rendered. J. L. Truax told many interesting incidents of his late visit to Idaho, where he saw farmers sowing grain in March, and where some land sold for \$1,000 an acre. Mrs. B. H. Smith gave an interesting account of her sojourn in Florida the past winter, then came a debate, Resolved, "That Robert Fulton did more for the people throughout the world than Thos. A. Edison."



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