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# MICHIGAN FARMER

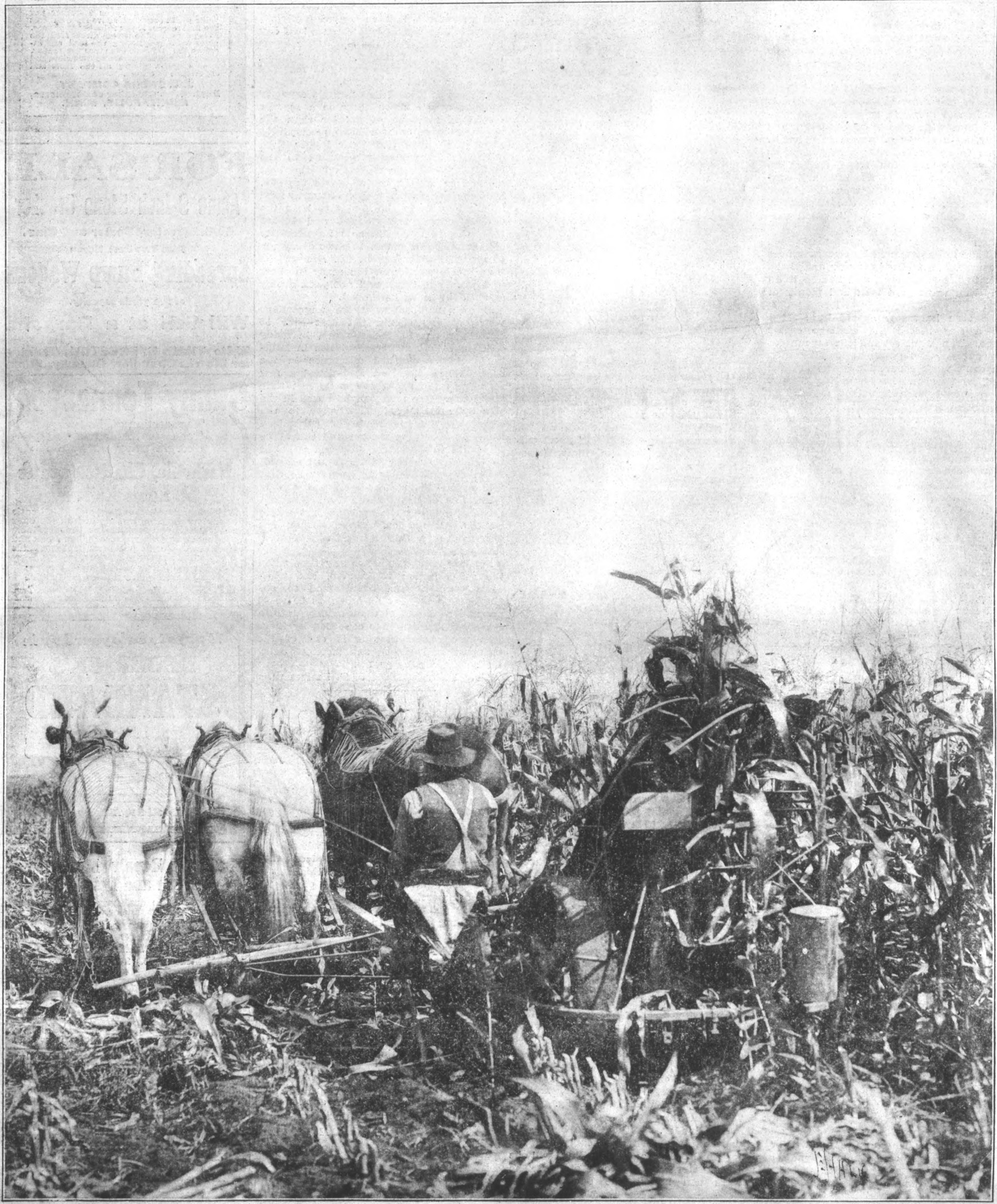
AND LIVE STOCK JOURNAL.  
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## FILLING THE SILO.

Silo filling at Lillie Farmstead has been an annual job for so many years that we make no more preparation for it than we do for threshing or any other annual task. Years ago silo filling caused more excitement than it does at the present time. Of course, with this job as with any other, ample preparations should be made. It wouldn't be a good plan to have the threshers come and not have the granary cleaned out, the bin boards started, and everything in readiness. Neither would it be the proper thing to have the ensilage cutter come and not have the silo in fit shape nor have any corn cut ahead. Preparations must be made for silo filling just the same as for any other job if you want to have the work done economically. But after several years one gets to know exactly what is wanted, and all the required equipment is at hand so little thought and time are needed to get ready. If the silos are cement silos, or if it is a cement lined silo, it should have been cleaned of all particles of ensilage that adhered to the walls from the previous filling and it is a good plan to wash the walls with cement water.

One of the most business-like propositions in silo filling is to get a good machine, one with plenty of capacity, and strong, with plenty of power to drive it. It has to do exceedingly heavy work so you want a machine large enough to take bundles made by the ordinary corn harvester without any trouble. Place the bundles, butt to top, cut the bands, and let them go through. A small machine is an expensive thing.

Then we want to get good men. We will have to be governed by circumstances of course. It is heavy work and hard work to lift green corn and handle it all day. You want good men and plenty of them.

The corn harvester should be started half a day before the ensilage cutter comes. You want a sufficient amount of corn cut so that you can load handily. You can't work economically if you have to follow the corn harvester too closely. There should be a sufficient amount of corn cut so that you do not have to drive any farther than necessary to get a load. On the other hand, there should not be too much corn cut ahead because, should it rain and the corn lays on the ground for any considerable length of time it is liable to gather dampness from the soil and get mouldy or musty. This injures its quality materially.

### Amount of Help Necessary.

If the corn is heavy it will need three to four men in the field to load the corn. If the corn is close by the barn you can handle it with two teams but if it is 40 rods from the barn you want three teams, if it is farther than that you will need four teams to get it to the ensilage cutter and keep the machine going. Then there will be an extra man to help unload at the ensilage cutter, besides the teamster, and one good man in the silo, making in all nine men besides the men who come with the machine.

I used to think that I would get low down trucks for handling ensilage corn but that was before the days of the corn harvester. Now when we have a corn harvester to bind the corn up in bundles I don't care anything about the low trucks, in fact, I don't think they are any advantage, and for this reason: When you come to unload this corn at the ensilage cutter only two men can work, there isn't room for any more. Now they can work easier and get more corn to the ensilage cutter from an ordinary wagon than they can from a low wagon because there they would have to lift it up. Out in the field, on the other hand, you have room for men enough to load onto the ordinary wagon. The amount of corn that you can put into the silo in a day really depends upon the man who unloads, because there is no chance for anyone to help them, they must do this work. You want to make it as easy as you possibly can, and you can make it easy by having an ordinary wagon which is as high as the ensilage cutter so that they don't have to lift the corn uphill at all, it simply goes down hill.

Men can handle the bundles of corn with short handled forks easier and better than they can handle it by hand. It is hard on the hands to grip the bundles. If the bundles are quite large many times it pays to have two men to a bundle and they can throw it on quite readily, but a good stout man can handle a bundle of corn if he has a short handled fork.

The man in the silo simply handles the

distributor. He carries it around the outer edge and through the center to evenly distribute the ensilage, keeps it tramped and level. That is about all that he can do. The better man you can get in here, the more tramping he does and, of course, the more ensilage you can get into your silo.

### Cost of Filling.

The cost of filling will range from 35 to 50 cents per ton. It will require the four men in the field, you could get along with three, and three teams with teamsters. In many instances you can get along with two rigs. You can get the men for \$1.75 a day, or \$10.50 per day for the six men. The teams ought not to exceed three dollars per day with the teamsters, making \$9.00. You can get an ensilage cutter, a good equipment, for \$1.25 an hour, or \$12.50 per day, and the cost of cutting the corn ought not to exceed \$8.00. You ought to grow from 80 to 100 tons of ensilage corn on eight acres of ground, and this can be cut in a day. Now this will make a total expense of running of \$40 per day and any good gang under ordinary favorable conditions could put in from 80 to 100 tons of corn silage into the silo in one day. You may say that this is figuring theoretically, that it ought to be done but in practice it never is done, but this is not so. I have figured the cost of filling ensilage, kept actual track of the number of hours of work and the actual cost of filling ensilage time and again and never did I have it exceed 50 cents per ton in filling the silo. Under very favorable conditions you can do it for less than that. Of course, if you have a break down or if you have a rain it makes it more expensive, but even then I do not think the cost of filling ought to exceed 50 cents.

Many questions are asked usually about taking care of the silage after the silo is filled. This is a simple matter. The next morning after through filling the silo go up into the silo and level it off, tramp it down good. If you will do this for three successive mornings you will have very little spoiled silage on top. If you will wet it good after you tramp it you will have less spoiled. There isn't much made in trying to raise some green crop to put on top of the silo or running chaff up there or marsh hay. You can raise corn just about as cheap as you can raise anything on the farm, and only from three to six inches of this will spoil on top if it is properly tramped a few mornings after the silo is filled.

### PUTTING UP ENSILAGE.

In cutting corn for the silo the matter of maturity is very important for no corn will give the best results in the silo when placed there before it has reached that stage. Green corn, or that which is immature, will invariably make unsatisfactory silage and right here has been the mistake of many farmers in their first experience with a silo. They have used corn for filling that was not in the right condition before it had fairly matured and the kernels had not become glazed and well dented, and consequently their silage has come out sour, as they term it. Do not cut until the kernels have dented and it is about ready for the shock.

Being thoroughly prepared for any time of farm work is of paramount importance. In no work is this more true than in filling the silo. I find that on my own farm I can cut an acre of corn yielding 12 to 15 tons and put it in the silo for \$7.00, or about 50 cents per ton. The same acre of corn would have 100 bushels of ears that would cost me \$6.00 for husking, with the cost of cutting, shocking, shredding and grinding, all costing me double what it does to put the same crop into the silo. It is usually estimated that it costs 70 cents to \$1 per ton to put corn in the silo, but I know that myself and neighbors put it in for 50 to 60 cents per ton. In what other way can you handle a crop of corn so cheaply and have it ready to feed, not only prepared for feeding but right where you want it. I have filled silos when the cost was \$1.25 per ton in labor and I have filled them when it was below 50 cents per ton. Why the variation? Lack of preparation, lack of knowledge in getting ready; lack of knowledge in selecting a good machine to cut up the cornstalks; lack of properly constructed racks and wagons, making the loading and unloading costly.

The first thing to get in condition is the corn binder. Without the binder we cannot cut the corn as cheaply and the labor in loading and unloading will be much greater with the loose stalks. The loaders can handle the bundles much

more easily. The man at the cutter handling the corn to the feeder of the machine will be able to keep the machine well supplied because he can take up a bundle without loss of time. If one man is not able to keep the machine full, there can be another load on the opposite side. Two men can deliver corn to the table and in no way embarrass the feeder because the self-feed attachment takes care of the bundles with but little help.

Wagons for the work should be low down. The best plan is to use low wheels on the ordinary farm wagon. Such wheels can be bought to fit the skin of any wagon. A low wagon can be loaded by the driver from the ground. This saves the expense of a loader. One man can put on a ton and a half in this way very quickly. I have seen a load put on such a wagon with the team walking along the row of bundles without stopping. Loose stuff could not be handled as rapidly. The racks should be flat and the deck tight so that both the loader and unloader will have a good footing.

The binder should be started a half day before the cutter at the silo. This keeps the binder out of the way of the wagons and insures an ample supply of material at the other end of the job.

The cutter should be of ample capacity so that at all times there is a reserve force. A machine of greater than the required capacity will have strength to stand the strain and wear longer than one that is constantly crowded to the limit. The blower elevator is the best method of putting the silage in the silo. The one precaution to be constantly kept in mind when in the silo is to keep the outside edges well packed and higher than the center. There is no necessity of tramping the middle because every ton of ensilage that falls in the silo will be that much weight on the mass to press it down. The edges will not pack evenly and should be well tramped.

If you will follow these suggestions your ensilage should not cost over 50 cents per ton in the silo and in many cases not that much. Distance in hauling makes a marked difference in the cost. When the load is finished a few rods from the silo there is no lost time in driving. One man can be saved in the silo by attaching a distributor to the elevator. This is made of galvanized iron. It is a pipe section and should be 14 inches in diameter. The end attached to the elevator should be funnel shaped. Make the distributor in sections so that joints can be removed as the silo is filled, this distributor can be led around the silo, putting the ensilage just where wanted. It not only saves a man but also insures a thorough mixing of corn, stalks and leaves.

Feeding may commence any time when the grass begins to shorten, and when cows once become accustomed to ensilage they will eat as much as 30 to 40 pounds a day. Without going into a further discussion it is conceded by those who use silage that it is one of the cheapest and most satisfactory dairy feeds that can be grown.

New York. J. P. FLETCHER.

### FARM NOTES.

#### Treatment of Seed Wheat for Smut.

I have been an interested reader and subscriber to your paper for a number of years and have always found it helpful. Can you help me in the following questions: What is good for wheat to prevent smut? I want to sow a few acres this fall but have always been troubled with smut.

Wayne Co. J. F.

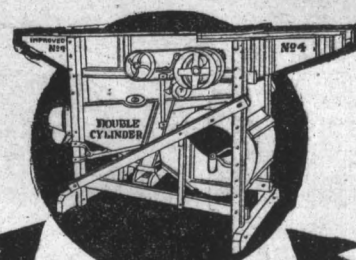
There are a number of remedies for the prevention of smut in wheat, the most favored and generally used of which is the formalin treatment. This is applied by diluting one pound of 40 per cent commercial solution of formaldehyde with 50 gallons of water and thoroughly moistening the grain by spraying with the mixture and repeated mixing, using about one gallon of the solution to each bushel. Leave the grain in a pile, preferably covered, for two to three hours, then spread and dry when it is ready for use.

#### Amount of Hydrated Lime to Use.

Will you please advise me how much hydrated lime to sow to the acre. I have procured the lime and planned to sow 1,000 lbs to the acre, but have been told this amount will be a damage. Will the hydrated lime keep in good condition until next spring? Is hydrated lime the best form to use for agricultural purposes? The lime will not be applied more than two weeks before seeding to wheat. I shall sow the lime to benefit the wheat, also the clover to be seeded in wheat next spring.

Hillsdale Co. F. C.

The use of lime as a soil improver is of comparatively recent origin in the



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United States, hence in determining the question of this kind the result of late investigations should be accepted with the greatest credence. In his recent work on fertilizers, Dr. Van Slyke, chemist of New York Agricultural Experiment Station, states that the amount of lime which should be applied is largely governed by three factors, viz., the character of the soil, the kind of crop grown, and the form of lime used. Regarding the factor of the character of the soil upon which lime is used, Dr. Van Slyke says:

"On poor soils, and in cases of light, dry soils, the amount of calcium compounds applied should be comparatively small, varying from 500 to 1,500 pounds of quicklime an acre (equivalent to about 700 to 2,000 pounds of slaked lime and 500 to 2,700 pounds of carbonate). On heavy soils and on soils containing large amounts of decaying, acid, organic material, the application may vary from 1,000 to 4,000 pounds of quicklime an acre (equivalent to about 1,300 to 5,000 pounds of slaked lime and 1,800 to 7,000 pounds of carbonate), according to frequency of application, degree of soil acidity, etc. Soils rich in organic matter can utilize calcium compounds, when used in large amounts, more fully and with less danger of injury to soil or crops than soils that are deficient in organic matter.

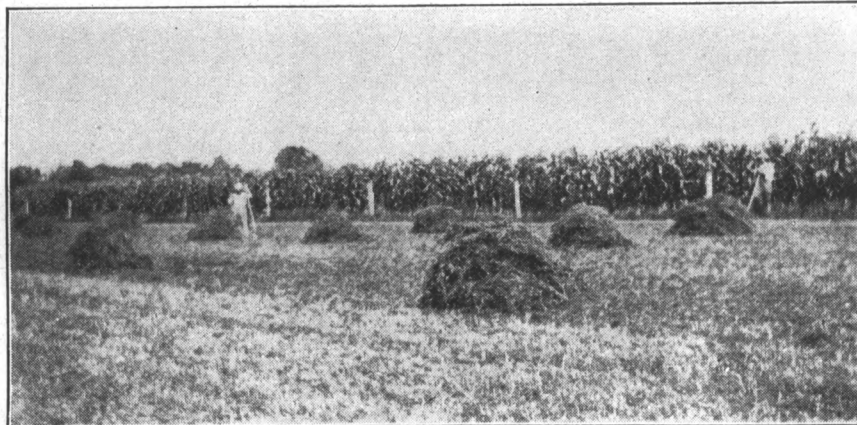
The second factor above mentioned is one which needs to be given little consideration here, since the prime object in the application of the lime is to produce conditions more adaptable to the growth of clover or alfalfa, or other legumes. The factor of the form of lime used is a more important one, and should be given careful consideration such as is evidenced by this inquiry. Regarding this point Dr. Van Slyke says:

"In applying calcium compounds, we must keep in mind that the constituent of value supplied is calcium. When we put on a more dilute form, as the carbonate or hydroxide (slaked lime), we must use more than when we apply the more concentrated form, quicklime or calcium oxide. \* \* \* To find out how much slaked lime is equal to a given amount of quicklime multiply the number of pounds of quicklime by 1.3; to find out how much calcium carbonate is equal to a given amount of quicklime, multi-

erence to the larger and more infrequent applications. Probably the safest form of lime to use is the carbonate in the form of ground limestone or marl, but something will depend upon the economy of application which, from the above comparison of the content of calcium can be easily figured out. Hydrated lime will keep indefinitely, or at least over winter, but lime should always be applied when the soil is being prepared for a crop so that it can be thoroughly mixed with the surface soil during the process of fitting.

#### ERADICATING QUACK GRASS.

I notice in your paper that the farmers of the state, as well as of other states,



Corn and Alfalfa Field on the Farm of M. T. Burlingame of Clinton County.

are having a great deal of trouble with "quack grass."

I have as nice a piece of quack grass as anyone would care to look at and I am killing it root and all, in one season. I also make a net profit of \$400 per acre while I am doing it.

My method is to run some poultry fence around a piece of quack grass, build a cheap board coop and stock it with a hen for each ten feet square inclosed. The hens are fed some grain and watered but no green stuff except the grass. They pick the quack grass right into the ground and keep it there.

I have followed this method for two seasons and find that the roots will never

the trouble with sod plowed ground in the spring, but if it can be plowed this fall will be overcome because the sod will partially rot and settle down firm so that there will be formed the capillary connection between it and the sub-soil. Now the earlier you plow this sod and the more you can work it this fall, the better. If I didn't have to neglect other crops I would plow it at once, but, of course, I wouldn't neglect other crops. For instance, if you want to get in some fall wheat I wouldn't neglect that for plowing this sod for sugar beets next spring. But just as soon as I could get to it and not have to sacrifice on some other crop I would plow this land. The earlier the better, and if it is done in this way there is no reason why you

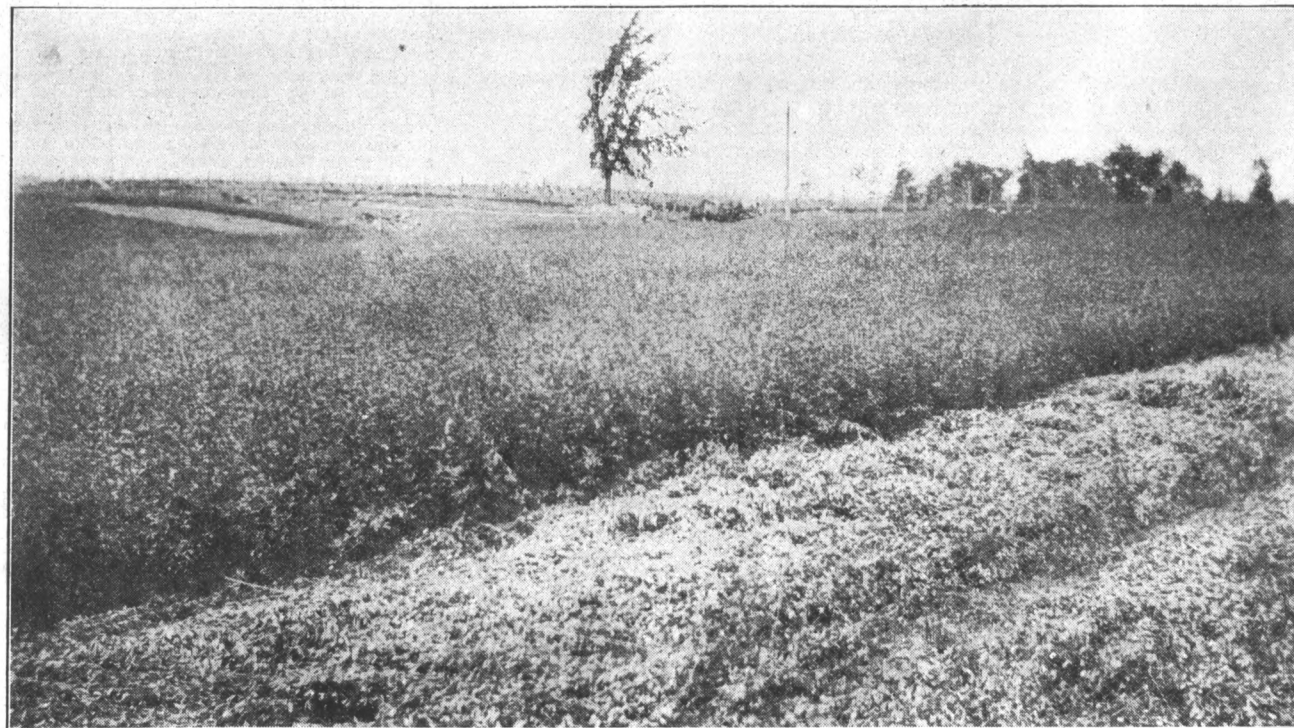
shouldn't raise a good crop of sugar beets on this sod ground, provided, of course, it is rich. If it isn't rich it can be made so by the application of stable manure or commercial fertilizer.

COLON C. LILLIE.

#### SUCCESS WITH ALFALFA IN OSCEOLA COUNTY.

As I am a constant reader of the Michigan Farmer, and value highly the practical lessons which it contains for every reader, I will contribute an item regarding my experience with alfalfa.

The accompanying photograph of my alfalfa field was taken on the 28th day



Second Cutting of Alfalfa (July 28), Sown Last Year without Inoculation, on the Farm of S. Upkes, Osceola County.

ply the number of pounds of quicklime by 1.8."

According to the authority quoted and from the results in actual practice it would appear that there would be little or no danger in using 1,000 pounds per acre of hydrated lime, unless upon a soil which is very deficient in its content of vegetable matter. In his own experience, the writer has used varying applications of both hydrated lime, ground stone lime and ground limestone as a preparation for the seeding of alfalfa. The immediate results have been practically identical, whether a small or comparatively large application was made, the applications of hydrated lime and ground quicklime running from 300 to 1,000 pounds per acre and that of ground limestone from one to three tons.

Probably the beneficial effects of the larger applications will be more enduring, but the best authorities advocate rather moderate and frequent applica-

come up again as they are thoroughly rotted and besides, the ground is enriched by the process. My method will show for itself.

Missaukee Co. F. H. NYE.

#### FALL PLOWED SOD FOR SUGAR BEETS.

I have a piece of timothy and clover sod which I wish to put into sugar beets next year. When is the best time to plow it, as soon as possible so that the sod will rot some this fall, or would it be best to wait and plow it late in the fall? How will sugar beets do on sod ground on a clay loam soil? W. B.

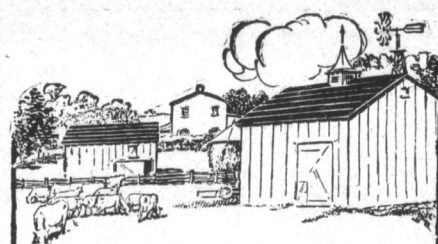
If this sod ground is plowed early this fall and perhaps worked a little and then worked up early in the spring it will be in good condition for sugar beets. The greatest objection to sod ground for sugar beets is that you can't get the sod packed down sufficiently to the sub-soil so firmly that the capillary attraction is not broken or disconnected below. That is

of July, when I was mowing the second crop. This three and one-half acres of alfalfa was seeded the second week in May, 1911, without any inoculation, with a bushel of oats per acre as a nurse crop. The soil is good and the field was in potatoes the previous year. The alfalfa had a hard fight with drouth and insects but came through all right and the first crop was ready to cut on June 18 of the present year, the second crop, shown in the illustration, being ready to cut on July 28. There is another fine crop growing and I expect to be able to cut it again during September. Although I did not weigh it, I am sure there was a yield of ten tons of fine hay from these two cuttings from the three and one-half acres.

I hope this may lead some farmers who have been afraid to try alfalfa to make a trial of this crop, as this shows what it will do if one gives it a chance.

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## LIVE STOCK

PURE-BRED VS. CROSS-BRED FARM ANIMALS.

There seems to be a great deal of misunderstanding in regard to the meaning of many of the terms used in connection with live stock breeding. In fact, there are words used that under some circumstances mean one thing and under others another. The word crossbred is one of those words and seems to confuse many. It is a term that is used by men who are seeking animals with which to perpetuate the breed, and while it may be very improperly used in that way, custom permits its use. The term cross is commonly used but not well understood by the average farmer, who has not made the subject of live stock breeding a study.

By the word crossing, many farmers seem to get the impression that it means the breeding together of animals of separate breeds, and they also have the impression that such a process will produce animals superior to that of either of the breeds used. Experience shows us, however, that only under certain circumstances can we get any benefit by crossbreeding. We will stop to mention some cases where crossbreeding may be used with benefit. Take, for instance, animals of two different beef breeds and the one cross may produce a superior animal for meat purposes, but the benefits derived from crossbreeding are all to be found there, as a trial will surely prove. To cross two breeds of hogs of what we call the lard type, may produce excellent results for that single cross, but it cannot be followed with benefit. In fact, the benefits derived from crossbreeding are so few that it is not worth the while to follow it to any extent.

Crossbreeding of animals that are not bred for the same purpose is a detriment, and the result will not be equal to the parents on either side. To illustrate, crossbreed a beef animal with a dairy animal and the product will be inferior to either the sire or dam as a meat producer or as a producer of dairy products. The same rule holds good with all other animals of two breeds, both of which are not bred with the same purpose in view.

In looking over the best results obtained by the breeding of farm animals, it is invariably the rule that the product of the pure-bred animal is superior for breeding purposes than can be produced by crossbreeding. This is true with the draft horse, and for breeding on stock not its equal, the result is often as good or better than the foundation stock used. With the race horse, the running horse, it is those which are bred the longest in that line that are capable of accomplishing the best results on the race track. The same is true in regard to the standard bred trotter. The grades as a rule are not capable of accomplishing as great feats or persistent endurance as those that are bred from a long line of parentage which have been illustrious for their capabilities.

In regard to the beef animals which have been bred for a long term of years with the single object in view of the production of meat products, better results can be secured than by the grades or crossbreds. The results obtained in the show ring and on the butcher's block prove this statement to be true.

With the dairy breeds, this statement is also eminently true as can be shown by the records made by the greatest producers of the different breeds. It is the pure-bred animals that have made records that have astonished the world and attracted attention to the particular breeds of which the distinguished producer is a member. It does not matter whether it be the Holstein, the Dutch Belled, the Ayrshire, the Guernsey, the Jersey or any other of the known dairy breeds, the results obtained have been the same; the pure-breds are the ones that have accomplished the greatest feats and brought honor to their individual breeds.

This rule holds good with all other classes of live stock. Whether it be sheep, hogs or poultry, the results are the same and prove the superiority of pure-bred stock for excellent results over that of the crossbred or grade animal. While it is not our desire at the present time to recommend that every farmer should secure for breeding pure-bred animals on his farm, we are ready to say that the man who has skill and good judgment and is willing to be painstaking in breeding live stock can secure

better results by the use of pure-bred animals, and ultimately make more money from them than is possible if he resorts to either crossbreeding or haphazard breeding in any way that his taste may lead him.

Wayne Co.

N. A. CLAPP.

### CARE OF DRAFT FOALS.

It is a matter of common knowledge among observing farmers and horse breeders that either draft horses or chunks may be produced from the same breeding. There is very little likelihood of securing great size in colts from undersized mares and stallions. Even the most liberal and judicious feeding is not likely to increase the size to any considerable extent in one generation. On the other hand, a decrease in size is easily accomplished. A draft colt raised on insufficient rations is almost certain to develop into a light weight or a scrawny chunk, scarcely a suggestion of the mighty weight-pulling dollar-making horse of commerce that nature intended him to be.

A properly nourished colt makes approximately one-half of his growth during the first year of his life. That his tender and undeveloped digestive apparatus may have sufficient nourishment to successfully accomplish this, it is apparent that the best of feed must be supplied. If this is not done the colt falls behind in this first year of his life and no amount of future care and feed will cause him to regain all that was lost. A limit, to a certain extent, has been placed upon his future development.

This year's crop of foals is now in the making. Most of them have, before this time, reached the age when they need something to supplement the nourishment supplied by the dams. A colt will early begin to nibble at grain if given an opportunity. It will not eat much, but should be given all that it will take.

Beginning in this way there is no danger of over-eating, and crushed oats and wheat bran bountifully supplied will marvelously increase the rate of growth. The value of all the feed a foal will eat is almost insignificant when compared to the extra growth it will produce.

Ton horses can be, and are, produced in this country but their number is lamentably small when comparatively considered. The greatest criticism that falls on American bred draft horses is their lack of size. It is a just judgment. Not until we furnish our foals and yearlings with an abundance of the best of feed, and cease practicing the mistaken economy of roughing them through this idle, but most critical, period of their lives will we raise colts as large as their sires. We are determining the rate and extent of growth in our horses by the feed and care given during the first twelve months of their existence.

American grains and grasses are as nourishing, and our sunshine as invigorating as that lavished upon the Perche and other noted draft horse sections of the other hemisphere. If we took as great pride in growing great lusty foals and yearlings, as we do in fitting our four and five-year-olds, we would contribute more toward supplying the demand for big drafters that has become a permanent feature of horse markets of the world.

Ingham Co.

H. M. YOUNG.

### IMPROVING THE PERMANENT PASTURES.

A very important thing on the farm in spring, summer and early fall is good pasture. This can only be obtained in a permanent pasture by a mixture and use of the proper grasses. Get the varieties that have different root formations and different habits and seasons of growth. A combination of this kind will maintain a rich, close turf throughout the entire season. Study the varieties and unite them. Different varieties are adapted to different sections, but except in a few localities no single variety will give the best returns. This is because there is no grass that furnishes early, continuous and late pasture.

While it costs a little more to seed an acre with a special mixture, the results will be so superior and permanent that they will far more than offset the original cost. Timothy should not be made an important factor in the permanent pasture. It will not stand tramping and soon runs out when heavily pastured and at best is short lived, as compared with more permanent grasses.

This has been clearly demonstrated by the careful trials conducted by the agri-

cultural experiment stations in various parts of the country. Good pasturage and good hay crops can best be obtained by sowing grass seeds in mixtures. The mixtures should contain many varieties of grasses which will grow and flourish side by side without detriment to each other, and attain their maximum growth at different periods of the year. Such pastures furnish continually an abundant bite, when meadows and pastures composed of but few varieties are brown and bare. Full use is thus made of the land.

The various grasses, being of different habit, seek the food they require at unequal depths in the soil, thus every strata of soil is used and a far greater number of plants grow and flourish in a given space. A proper mixture, properly "caught," will maintain its heavy cropping qualities for many years and, if occasionally top-dressed with manure it will steadily improve, whereas a stand of timothy soon becomes thin and in three or four years must be plowed up and re-sown or rotated.

Another advantage of this mixed scheme of seeding is that it is heat and drouth resisting, something very desirable in later years. A proper mixture of fibrous, deep-rooting varieties spread and intermingle, forming a tough-rooted sod, free from stooling growth. The grasses protect their own roots and are therefore less susceptible to extremes of heat and drouth, retaining their verdure and succulence even through dry, hot weather, when timothy is burned up.

The question of varieties is important. The northern and eastern states, the far west, and the southern states make three distinct sections so far as varieties are concerned. In the first mentioned section combine Kentucky blue, Canadian blue, red-top, orchard grass, creeping bent, awnless brome, tall meadow oat grass, meadow foxtail, hard fescue, sheep's fescue, red and alsike clover and possibly add a little alfalfa. If not grazed so closely that the roots are injured, this will furnish an abundance of pasture from early spring to late fall.

It is a well-known fact that one of the most serious items of expense on the farm is the labor bill. This can be largely reduced and yet give reasonable prospect of profitable annual returns at a minimum of labor and expense by getting a portion of the farm into grass in its various forms.

Illinois.

W. H. UNDERWOOD.

### SEE THE LIVE STOCK AT THE STATE FAIR.

Of the many educational features of a state fair there are none which should appeal to the average farmer more forcibly than the opportunity offered to study the improved breeds and types of live stock. There is no one direction in which the profits from the average Michigan farm could be more rapidly increased than by the improvement of live stock maintained upon that farm, and there is no better place than a large agricultural fair to study different breeds and types of live stock for every special purpose.

Such a study and comparison of live stock at the state fair will result in the forming of higher ideals by the fair patron, so far as his ambition in live stock production is concerned, and in the realization of these new ideals will be found both satisfaction and profit. Every farmer in Michigan who will take the time to carefully study the live stock exhibits at the state fair will be repaid many fold for his trouble.

### FEEDERS' PROBLEMS.

#### Sweet Clover vs. Red Clover.

When is the best time to sow sweet clover and will it build up worn land as good as red clover? Also, should I sow it alone or will it do to sow it in oats in the spring or in rye in the fall?

Genesee Co.

O. D. G.

If one were to seed a field to sweet clover the spring would be a more favorable season, although it can be sown in midsummer or early fall the same as other clovers. Undoubtedly it would be more likely to make a good stand if sown alone or with a light nurse crop than if seeded in the grain crop. There is some question, however, as to whether it would be profitable to sow sweet clover in Michigan. It is a valuable soil improver but would prove no more beneficial in this respect than the other clovers. But the plant to which it should be compared is alfalfa, since the same nitrifying bacteria are peculiar to both plants and it should be practically as easy to get a stand of alfalfa as of the sweet clover. However, there would be

no comparison between the value of the two plants when once established, since the alfalfa would make a greater abundance of much more nutritious forage. Hence the wisdom of sowing alfalfa in preference to sweet clover.

#### Alfalfa Pasture for Horses.

I have a piece of alfalfa that I pasture my horses on a few hours each day. Now will it hurt them after it is frosted, and can it be pastured after the ground freezes, or as long as June clover? Any information you can give me in this regard will be greatly appreciated.

Jackson Co.

P. C.

Alfalfa makes an excellent pasture for horses and those who have had considerable experience in using it for horse pasture state that they see no deleterious effects whatever from its use. In the writer's opinion, there would be no more trouble comparatively from the pasturing of alfalfa than would be the case with clover, although an exclusive roughage ration of frosted grass of any kind would not be a good diet for work horses.

### LIVE STOCK NOTES.

The digestive capacity of calves is increased not by starving them but by feeding them liberally of bulky feeds. Like muscles, healthy exercise enables the intricate digestive organs to assimilate feeds to a degree impossible without the stimulation.

There is little complaint from congressional quarters now relative to the "high-handed" manner of the packers in boosting beef prices. Apparently congressmen have come to the conclusion that the beef cost follows steer cost, and that rising steer cost is merely the result of a shortage in production. Still, agents of the department of commerce have visited the Chicago market recently and made investigation into trading affairs and will report their finding to the federal officials. Market men say it should be an easy matter for the government to determine the relation of the record cattle values now with supply and demand. An impartial investigation of current affairs should readily convince federal officials in search of information that the beef trade now, as in the past, is merely following the dictates of supply and demand and market traders have long since foreseen the coming of the present situation.

Hogs sold up to \$9 in the Chicago market within the past week, highest since October, 1910, and there is now strong expectancy of a \$9.50 market before long. Hogs are short of the normal demand at this time. Packers are finding a good retail outlet for the produce since beef has mounted to war time cost and further rise in beef cost can only be expected to bring out a bigger consumer call for pork as a substitute which should give the hog market further bullish force.

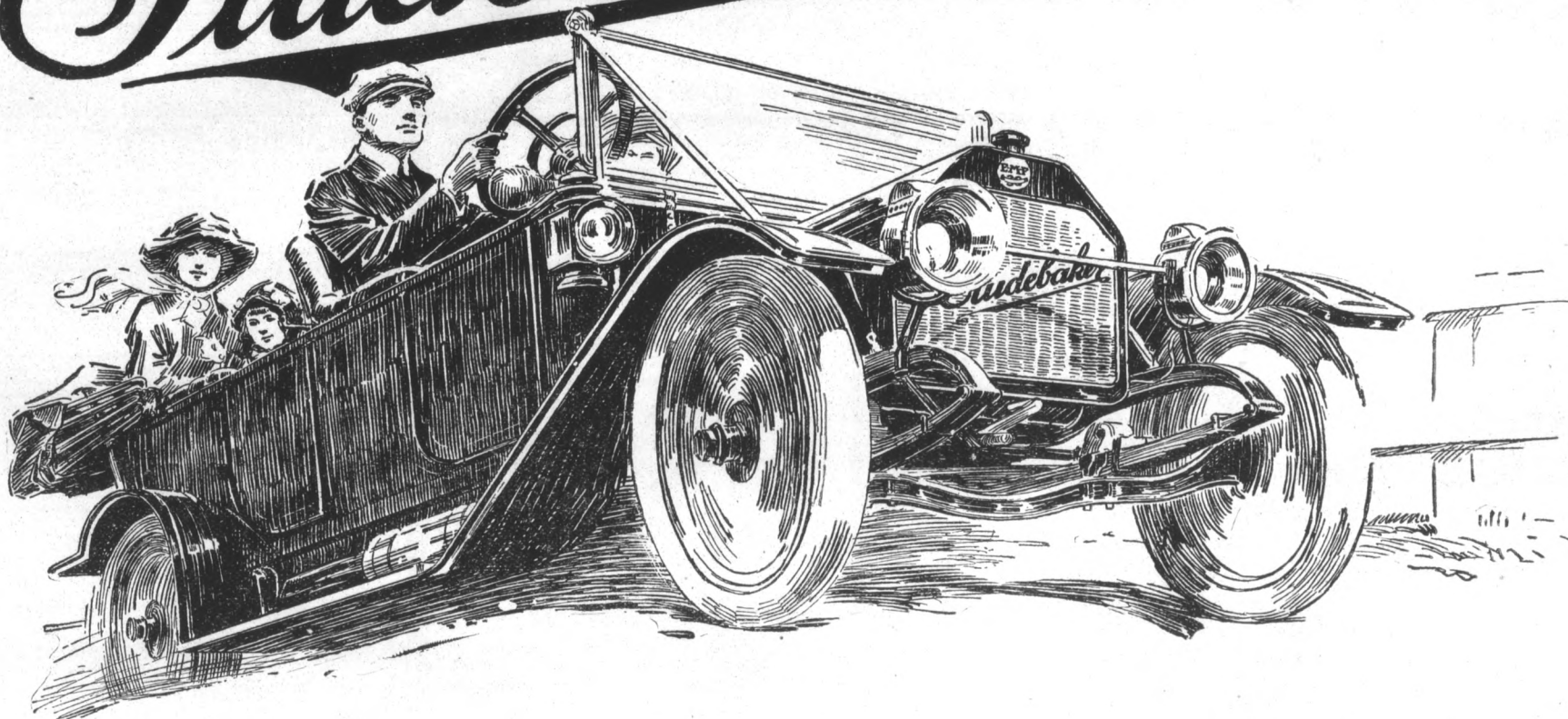
The tendency of the times is toward elimination of the domestic animals of mixed and common breeding and the stock yards reports contain daily proofs of the wisdom of so doing. The poor steer is no longer deemed a farm asset. He grazes on land too high in price for him to pay its dividend, and he eats corn which also costs too much as a producer of beef on his carcass. Better bred and earlier maturing steers, the farmers are finding, pay best, and that there is a growing tendency to breed up herds in many sections is well attested by the activities in the pure-bred cattle trade at this time.

Effective Sept. 1, 1912, there will be imposed and collected upon each carload of live stock received at the Chicago yards the sum of ten cents, to pay the premium of a fire insurance policy indemnifying owners against loss or damage by fire, which premium in accordance with the provision of a new rule adopted by the Chicago Live Stock Exchange must be charged against the consignment of live stock. The matter of fire insurance on live stock at the stock yards has been considered for a long time, and the majority of patrons of the market, it is believed will readily see the advantages of protection against fire loss at so small a cost as ten cents per carload. Legal luminaries have heretofore declared that neither the stock yards company nor the commission merchants could be held liable for damages in the event of a conflagration in the stock yards.

The abnormally high prices for cattle because of their remarkable scarcity are causing many farmers to consider the question of buying bunches of feeders, but they are confronted with the scarcity of well-bred lots of such cattle and greatly advanced prices for the best. Last year there were sold to country buyers in the South Omaha market alone nearly 500,000 feeder cattle and more than 1,500,000 feeder lambs and sheep. There seems to be no possibility of securing anything like such supplies this year. Shrewd buyers of feeder cattle and sheep are not putting off such purchases, but are writing to reliable live stock commission houses at Chicago, Omaha, Kansas City and other leading markets asking them to select car loads of good stockers or feeders, naming such prices as they are willing to pay. Some sales have been made at extremely high prices where the cattle already carried a good deal of flesh, but the average orders call for a medium class of steers of medium weight that can be bought at not extreme prices. Stock and feeder heifers of good breeding are also having a fair sale, many stockmen who found the business a profitable one the last season being ready to try it again, particularly as good heifers can be bought so much lower than steers of equally good quality.



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## The Studebaker Corporation, Detroit, Michigan



## 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 some one else. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany the letter.

**Broken Wind—Chronic Cough.**—We have a seven-year-old mare that had a colt last spring which acts much like a horse that has heaves; besides, she has mucus discharge from nose. This mare also has a chronic cough. O. S., Unionville, Mich.—Feed your mare no clover, or musty or dusty badly cured fodder, and wet her feed. Give her ½ oz. Fowler's solution and 2 drs. fluid extract of opium at a dose in feed three times a day. She should be fed grain and grass.

**Scar on Shin—Stocking.**—I recently bought a four-year-old colt with scar on shin just below hock. He also has large ankle joint on same leg said to be caused by a wire cut. This same colt is troubled some with worms and his water is thick. O. C. W., White Cloud, Mich.—Give colt a teaspoonful of powdered nitrate of potash and two tablespoonfuls of ground gentian at a dose in feed three times a day. Apply tincture iodine two or three times a week to enlarged ankle. A swelling of this kind can seldom be reduced entirely and I am not sure that you will obtain satisfactory results in treating it.

**Indigestion—Wabbling Gait.**—I have a mare that our local Vet. thought has been poisoned by eating a weed. I sent sample of the weed to botanical department of M. A. C. and they informed me that the weed is not poisonous. She shows symptoms of dullness, fever, walks with a wabbling gait, has fairly quick pulse and always has a good appetite. W. G. W., Seckirk, Mich.—Give your mare 1 dr. potassium iodide, 1 dr. ground nux vomica and 1 oz. of bicarbonate soda at a dose in feed two or three times a day. This mare may never fully recover; however, the treatment I have prescribed should be kept up for several weeks.

**High-up Ringbone—Orphan Colt.**—Have a ten-year-old mare that hurt her right fore leg last April, which later developed in a high-up ringbone. Our local Vet. has treated her all summer, blistering her several times without good results. One of my brood mares died, leaving colt only six weeks old and I would like to know how to feed the colt. M. K. C., Bay Shore, Mich.—When blisters fail, have ringbone fixed, but be sure and give your mare absolute rest. Feed your colt some ground oats twice a day, also give it cow's milk, adding one-quarter water and be sure that it runs in good grass.

**Thoroughpin.**—I have a five-year-old mare that has small puffs in hock, one on each side in hollow. These puffs disappear when pressure is applied, but return immediately when pressure is off. This mare has not worked much, never showed lameness; therefore, I am unable to account for it. I am contemplating the purchase of this animal at a good sound figure and, of course, want a sound horse. G. W. G., Rapid City, Mich.—The puffy swelling you refer to is a small thoroughpin and is regarded as an unsoundness. A horse with a puff of this kind is serviceably sound, but critically unsound, consequently worth a little less money.

**Suppurating Udder.**—I would like to know what can be done for a cow that has a caked udder and from this quarter a thick yellow fluid or pus is milked from it. Our local Vet. has treated her with rather poor success. This cow met with an accident, wounding teat of this quarter, but this wound healed sometime ago; however, it left an opening through which milk flows. J. F., Redford, Mich.—Your cow's udder became infected through opening in side of teat. Apply iodine ointment to diseased quarter twice a week. She should be given bacterin treatment hypodermically. I suggest that you consult your Vet. regarding this anti-suppurative treatment.

**Cow Gives Bloody Milk.**—For the past four months my cow has occasionally given bloody milk from one quarter of udder. She seems to be all right three-fourths of time. J. L. D., Dowagiac, Mich.—Your cow must injure her udder in some way. Apply one part fluid extract arnica and six parts water to udder twice a day. It is possible for you to ascertain how she bruises udder.

**Pigs Need More Salt.**—I have 19 shoats that will each weigh 60 lbs.; these pigs have a splendid appetite, fed on skim-milk, corn in ear, oats and wheat ground and they also run on rape and red clover, and so far as I can see or tell they are all right. They seem to persist in rooting each other's sides and shoulders, and have done so ever since they were weaned. When hungry they root less than when full. J. L. A., Deerfield, Mich.—Salt their food. Also give them some cooking soda in their feed twice a day.

**Infected Stifle Joint.**—I have a colt four months old that is lame in right stifle joint and I might add that when this colt was three weeks old a bunch appeared on outside lower part of stifle joint. I applied liniment and lameness seemed to disappear, but he has been lame for the past 30 days. The joint is somewhat enlarged, especially lower part. H. W. S., Oak Grove, Mich.—Your colt (Continued on page 227).

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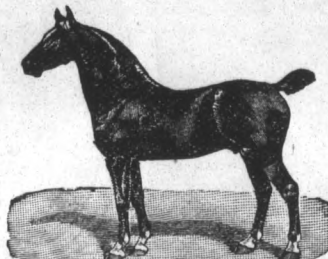
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**O. I. C.** Extra choice bred gilts, service boars and spring pigs, not akin from State Fair winners. Avondale Stock Farm, Wayne, Mich.

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

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**O. I. C's** of superior quality. 17 choice young gilts and 11 topy young boars. Pairs no akin. FRED NICKEL, Monroe, Michigan.

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**P. C. BOARS**—Large type—sired by Expression 8439 and E. M. F. 3387. Satisfaction guaranteed. R. W. MILLS, Saline, Mich.

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**TWO YOUNG TAMWORTH BOARS FOR SALE** T. F. MARSTON, Bay City, Michigan.

**Mulefoot Hogs**—30 SOWS and GILTS Bred. A/s pigs not akin. Boars all ages. G. C. KREGLOW, Ada, Ohio.

**For Sale, Yorkshire Gilts**—Bred to farrow the latter part of August. Also pigs, both sexes. WATERMAN & WATERMAN, Meadow Land Farm, Ann Arbor, Mich.

### CHOLERA PROOF HOGS.

I have more than 5700 swine on my farm and am selling grade Yorkshire, Tamworth, Poland China and Duroc brood sows, boars and shoats in any quantity at best Buffalo market price for fat yorkers on day of sale. Sows to farrow soon included. These hogs are not fat, are cholera proof and prolific breeders. Pigs that are 6 to 10 weeks old at \$3 to \$4.

ALVAN BROWN'S PIG FARM, Grand Rapids, Mich.

**Large Yorkshires**—Stock of all ages. Will exhibit at West Michigan State Fair, see them. W. C. COOK, R. 42, Ada, Mich.

### Lillie Farmstead YORKSHIRES.

A few choice Gilts bred for September farrow, good ones. Spring pigs, either sex, pairs and trios not akin. Satisfaction guaranteed.

COLON C. LILLIE, Coopersville, Mich.



## CORN IS THE EQUAL OF OATS FOR HORSE FEED.

A prominent veterinary surgeon in the state of New York, says: "The oat-fed team, which may not carry much weight sometimes, as a corn-fed one, can endure more work on the farm, and more hard driving, on the road, and be ready for business more days in the year, than can corn-fed horses, as a whole."

The doctor must be mistaken. I have had experience in feeding whole corn to working horses and know he is wrong. For ten years during the winter, I fed and drove my own team, and hauled logs from a timber lot in the woods to the saw mill on the bank of the river—a distance of three and a half miles, and I made three trips a day, six days in the week continually, as long as the snow lasted, which was generally two or three months. The horses were in their prime and weighed 1,200 pounds each. They had good teeth, and good digestion, and in every respect were sound.

They were fed in the morning, before daylight, a heaping half bushel of yellow eight-rowed, sound, hard corn in the ear. They ate off the corn without breaking the cobs, leaving a few kernels on each cob. I started before daylight in the morning so as to make two trips before noon, at which time the horses were fed nearly as much corn as in the morning. After making the third trip they were brought to the stable wet with sweat and, after they had rested and been watered, were given the same quantity of corn as in the morning, which was eaten in the same manner. They were given hay at night, but owing to such strong feeding with corn, could not eat much. In the woods, where the logs were skidded, they had to be drawn half a mile up hill, which in some places was so steep the horses had to draw with all their might and be rested every few rods. No more severe labor could be found for a team than this log drawing with heavy loads, and long hours. The horses in the spring, though looking gaunt, were in good hard-working flesh, and employed at farm work.

My father bought a mare six years old for a carriage horse, and he fed her 12 common sized ears of corn three times a day, it being her sole grain feed, and he often drove her to town and back, a distance of 40 miles. Some of the experiment stations have declared that corn was the equal of oats as a horse feed, and they stand on solid ground.

Corn is always a cheaper feed for horses than oats, but I want to say right here that it is not economical to feed ear corn to horses, cattle or hogs. I am firm in the belief that all the grain fed to animals should be ground. I fed ear corn because I was in a hurry and did not want to take time to make cut feeds of cut hay and meal.

Pennsylvania. J. W. INGHAM.

That farm teams can be maintained in a vigorous condition on corn as an exclusive grain ration is common knowledge among Michigan farmers. Where clover or alfalfa hay is fed as the roughage portion of the ration, it is probable that corn is the most economic grain ration, especially in the winter season. However, there is undoubtedly a waste of nutrients and a consequent tax on the animals digestive system which might be avoided by adding a protein feed to the ration, which would often also cheapen the ration. A horse will undoubtedly do a maximum of work and keep in good condition on a smaller grain ration where the nutrients in the ration are reasonably well balanced than on a grain ration of corn alone, especially if timothy hay or other non-nitrogenous roughage is fed—a point in feeding economy which should be carefully considered and studied by every farmer. There is, however, no doubt that corn is the most economical feed for the major part of the ration under ordinary conditions, notwithstanding the fact that it is generally good economy to combine a small amount of some protein concentrate with it for horse feeding.—Eds.

Prime steers sold on the Chicago market in the past week at \$10.65, establishing another new record price, which is 45¢ higher than the top registered on the market in war time. These steers were Shorthorns fed by Fred Holton, of Illinois. Many lots have recently sold at \$10@10.50 including distillery-fed steers up to \$10.30, while prime yearling corn-fed cattle reached \$10.10. Eleven dollar cattle are expected to materialize before the season ends, since there is each week a growing shortage of prime steers and the demand for fancy cattle of these classes shows no abatement because cost is rising.

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"I do not know that your Sal-Vet kept my hogs from cholera, but it was prevalent among all my neighbors' herds, and did not affect ours."—(Signed) Thos. Hauser, Rt. No. 1, Kyles, O.

"I fed a carload of hogs on which I made a thorough test of Sal-Vet for seventy days. Cholera or some disease like it was killing off hogs all around me, but I never had a single one sick; they remained in fine condition during the entire time."—(Signed) W. C. Grove, Box 235, Hominy, Okla.

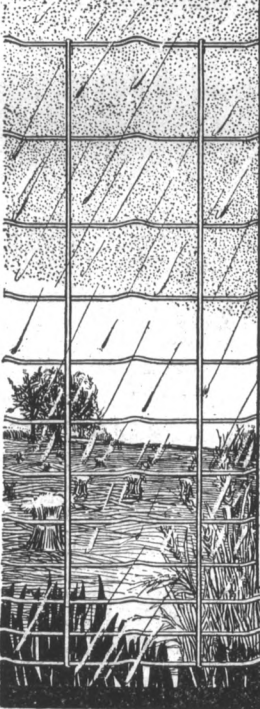
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## THE DAIRY

CONDUCTED BY COLON C. LILLIE.

### ENSILAGE—ITS ADVANTAGES AND HOW MADE.

A QUARTER of a century experience growing, handling and feeding ensilage ought to equip a man with a fairly good practical knowledge of silos and ensilage. Our first silo was built in 1885 and since that date silos and ensilage have been a prominent feature of our dairy and farm management. In fact, I think I am correct when I say that few other barns in the country furnish a better example of the evolution of the silo than the dairy barn on our home farm. Our first silo was a large cellar 20x28 feet and 14 feet high and subdivided into two parts 20x14 feet and 14 feet high. This silo was rather of a crude affair but it preserved the corn crop in fairly good condition for winter feeding, although fully one-third of its contents was wasted on account of the too large feeding surface and square corners. Next we built one-half of this silo 14 feet higher. This gave better satisfaction, although there was still considerable spoiled ensilage and it was practically impossible to keep the edges and corners packed sufficiently firm to prevent large losses around the outside. About 12 years ago we built two round stave silos inside of our barn, one 16 feet in diameter and 30 feet high and one 14 feet in diameter and 32 feet high and these silos have been used every year since they were constructed and are in good condition at the present time. This much we have learned from actual experience. Too large a feeding surface should be avoided. It is better to build high and not too wide. There should be no square corners to pull apart and admit air. The ensilage packs more firmly in a round silo and it is best to have two silos, one for winter feeding and one to supplement pastures.

#### Dairy Production Cheapened.

There is no subject connected with dairy improvement that has been discussed more than silos and ensilage. I often feel that it is like repeating old sermons, yet, notwithstanding all this, farmers are slow to be converted and the gospel much be preached. When silos first came into use considerable trouble was experienced in keeping the contents in good condition for feeding. Much of the product was more like sauerkraut than wholesome food. Such ensilage put up from immature corn, barnyard grass and rag weeds could produce no good results. But conditions have changed and men have come to know that ensilage is not only a good food, but it is the cheapest food we can provide for our cows. If we successfully meet the competition of the future we will be forced to depend upon the silo in our efforts to cheapen the cost of milk production.

In my travels among dairy farmers and on my own farm I find that more milk can be made since the silo came into use. This is not one man's opinion but universal testimony. Some may ask why so many men have abandoned silos. As a matter of fact there are not many silos abandoned, unless the corn crop failed, or by prejudice of certain milk buyers where poor ensilage has been used in the past, and as a natural consequence they had to stop the feeding of ensilage to protect themselves. I have yet to see the first practical dairyman who has built a silo abandon its use. The very best dairymen in the country, the ones who are getting the most money for their products, are feeding ensilage.

Well matured corn ensilage is the cheapest food we can put up for winter feeding. It furnishes succulent food for winter, without which no milch cow can do her best. It can be raised cheaper than root crops and it enables us to more than double the food producing power of an acre over any other crop we can raise. Before we built our silos we had to have about three acres of pasture for each cow and from two to three acres to raise hay and roughage enough to feed her through the winter, besides the grain feed she must have, while with corn, an acre will supply all the ensilage she can eat during the year and with the addition of about an acre of clover hay or a half acre of alfalfa, she will be well-fed as far as roughage is concerned. Then there is no better way to utilize the corn crop than by putting it into the silo, for there it is preserved in the best condition for food. It not only furnishes the

necessary succulence, but checks the development of the woody fibre at just the stage of growth when it is most valuable for milk production.

#### Silage Increases Digestive Capacity.

Another important phase of this feeding question is that the chemical action that takes place is an aid to digestion that enables the cow to eat more than she otherwise could digest and assimilate, thus making more milk from the same food elements than she could make from any other dairy food product. Ensilage changes December into June for the dairy cow. We must produce more milk than is the common practice during the winter. There is no reasonable excuse for allowing cows to go dry half the year and tending a lot of dirty, lazy cows all winter with no income from them. It is the steady income every month in the year that puts our dairy business on a money-making basis. What would farmers say of a merchant who closed his store in the fall and would not sell anything until spring, yet how many farmers are doing this very thing and then wondering why their profits are not larger?

Looked at from every standpoint we are forced to accept ensilage as the cheapest food known for dairy cattle. The evolution of the silo has come down to us with many improvements until today we are forced to accept its utility and advantages. During June conditions are ideal for milk production and if we keep our cows at their best we must approximate June conditions at other times of the year, and the only successful approximation of June food is ensilage. Ensilage, I believe, is cheaper than grass and any cow that will eat grass will eat ensilage. With this backing up, let us see how best to construct a silo and fill it.

#### Calculating the Size of Silo.

A general rule can be laid down that will answer this question with unerring certainty. Allow one cubic foot of silo space as a ration for one cow per day. A cubic foot of ensilage weighs about 40 pounds, or an average ration for a 1,000-pound cow. By taking into consideration the number of cows you want to feed and the length of the feeding period, you can readily find out the size of the silo or silos you ought to build, but bear in mind that a silo full will settle nearly one-fourth, and make your plans accordingly.

Never cut the corn until it has begun to glaze. Here is where many make a serious mistake by putting up the corn before it is ripe. There is a large increase in nutrients between the time of tasseling and ripening of the corn.

In regard to cutting and filling the silo we must be governed by circumstances. Some men prefer to do the work with their own help; others want to change work and rush it through as quickly as possible. So far as the keeping of the ensilage is concerned, it does not matter. Some men work two or three weeks at filling their silos and have good ensilage.

We change team work with some of our neighbors and hire extra day help. By hiring a threshing engine and cutter and with 15 men and six or seven teams we can rush the work. We pack the ensilage in the silo and keep the edges well tramped. The only secret of keeping ensilage in a round silo is to keep the doors tight and the edges well packed. We have employed all kinds of help in our silos and find that it pays to put good faithful hands in the silo while it is being filled.

Certain precautions in feeding are necessary. Everybody knows that June conditions are best for milk production, and with the silo we approximate the June feed, green, succulent and laxative, so we must have the June climate, or, in other words, don't feed your cows ensilage unless your stable is warm.

Another matter we must take into account, and that is, corn grown as for the grain will have too many ears to make a good feed for cows that are giving milk. The nutritious ratio is about one to twelve, so my practice is to go through the field and snap off about 30 or 40 bushels of ears per acre before cutting and using this to feed pigs and other stock during the fall. Even then we find it necessary to feed proteinaceous feeds with the ensilage to balance up the ration and we use gluten, oil meal and cottonseed meal. We feed the grain dry with the ensilage. In taking ensilage from the silo care must be taken to keep the feeding surface smooth. Go over the whole feeding surface once in 48 hours, or else the mass is apt to begin to mold.

New York. W. MILTON KELLY.

## Keep Hogs Healthy



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BUILDING UP A DAIRY HERD.

The chief function of a good dairy cow is to produce economically a large quantity of milk. She is the kind that every farmer would like to own. As a rule, however, if he wishes to procure a herd of such he must breed them himself, as in only very rare cases will it be possible to buy them from neighbors. In almost every herd there are several good individuals which may serve as a foundation. By selecting a bull of the proper dairy type, and sticking to the same breed, a few years will show considerable progress. In selecting a sire particular attention should be paid as to what kind of a dam the bull had. Provided, as an individual, he is satisfactory, and has breeding of a high order, that is based on performance, he is certain to get good calves.

No cow, however, is capable of doing her best without proper food. The feed must largely depend upon surrounding conditions, such as the adaptability of the land to produce the necessary crops or the price at which they can be bought in the market. Whichever method is pursued there are certain principles of feeding that should serve as a guide in compounding a ration, judgment being used in applying them to suit individual requirements. All fodders are composed chiefly of protein, carbohydrates and fat. The first of these nutrients goes to form hide, hair, hoofs, horns and muscle, and also enters largely into the foundation of milk. The other two go to produce heat, energy and fat. It has been found by experiment that about one part of protein to six of carbohydrates and fat gives the best result in feeding. This relation is known as the nutritive ratio. Thus, by referring to a chart giving the composition of the various feeding materials, it is a simple operation to figure out what proportion of the different food stuffs at hand are required to make up a balanced ration. The age of the animals must also be taken into consideration. Young animals require food richer in protein than older animals, as they are building up new bone and muscle. There are many things that enter into the development of a dairy cow, but what is perhaps of first importance is to encourage a rapid growth without acquiring a tendency to put on fat.

To build up a herd successfully it is necessary to keep a record of the yield of each cow. Not only are we able to weed out the unprofitable ones by so doing, but the utility of such records are of great importance as a guide to the feeder. By their aid one is able to tell what any particular cow is doing, and thus judge the ration for each accordingly. This will result sometimes in feeding more economically. On the writer's farm the cows were let out to pasture, last year, in June. There being a fairly good growth of blue grass, clover and timothy. According to the monthly statement the whole herd, including a number of heifers and strippers, averaged 26.2 pounds a day. About July 1 we began feeding molting crops, and continued doing so until the end of October, with the result that for July the daily average increased to 29.4 pounds; August was 31.5 pounds; September 28.9 pounds, and October 24.7 pounds. By using the scales we were able to ascertain that extra feed was necessary to increase the milk yield, hence they were gradually forced up to the point where further feeding would have been unprofitable. A spring-balance is placed in a convenient place in the stables, as are also the record sheets. When a cow is milked it only takes a few seconds to hang the pail on the spring-balance, which instantly denotes the weight of the milk, plus the pail, which, of course, has to be deducted before the record is made. Personally, we have not found the extra time required for this work to be any objection; in fact, the increased interest it creates results in better care of the cows, and ultimately larger cash returns.

Canada. J. HUGH MCKENNEY.

CHANGING THE ROTATION

I am in the dairy business; am milking 16 cows and will milk 25 the coming winter and seven more one year later. I have followed a four-year rotation, my work land being in four fields. Now I have broken the rotation by plowing a field after haying and am about to sow alfalfa. Shall I drop wheat, or how would you advise? I have two silos, 12x34 ft. and 16x32 ft. I have reserved a six-acre field for shade and exercise. I am feeding peas and oats which were put in silo July 1.

E. L.

It undoubtedly is a wise move on the part of the inquirer to seed down one of

his four fields to alfalfa. If he succeeds in getting a good stand of alfalfa, as he undoubtedly can, because we are learning to grow alfalfa now, he will increase his yield of hay a good deal, and if he is going to keep on increasing the cows this will be a move in the right direction. He also figures right on the rest of the rotation and that is that he must keep clover in the rotation. He will have clover in a three-year's rotation which ought to keep building up his other three fields so that they will eventually produce more than they do now. The alfalfa will give him two or three crops a year after it gets well established and that and the clover crop will make an abundance of the best of hay for the dairy cow.

Now the proposition is, which one of the crops to cut out, oats or wheat. From my experience I would say, cut out the oats and raise corn, wheat, and clover, and I'll tell you why. You undoubtedly put most all of your corn into the silo. This will get it off early enough so that you can put this corn field into wheat without plowing. Before I bought more land and began raising sugar beets and crops for the canning factory and things of that sort, I had a three-year rotation of corn, wheat and clover. I tried the oats instead of wheat, but I liked the wheat very much better. It made less work, and I am sure it made me more money. The oat crop is a crop that ought to go in early. It is difficult to get it in early, you have so much to do. But you have plenty of time to plow the ground for corn and get it in on time. Then if you keep the ensilage corn clean and well cultivated after the corn is in the silo you can put this ground into wheat without plowing. With this three-year rotation I have a five-year average of over 30 bushels of wheat per acre. With this kind of a rotation you can compete with the great northwest in growing wheat. Now wheat straw is more valuable for bedding than the oat straw. The wheat crop, nine times out of ten, will bring you more cash for your investment than the oat crop and so I would cut out the oat crop and stick to wheat. Another reason. With this rotation, clover, corn and wheat, you have no land left bare over winter. The wheat acts as a cover crop. Where you have oats follow your corn the ground is left bare over winter and is liable to wash. There is a loss of plant food. Personally, I think that a three-year rotation of corn, clover and wheat for the dairy farm is an ideal rotation. Of course, you don't use the wheat to feed the dairy cow as you would the oats, but the wheat you raise will buy more oats, or as many oats, as you could raise and on a ten-year average I believe you would have some money to buy other things with. You will save the labor of plowing the ground in August, usually when it takes a great deal of labor to prepare the ground for wheat, and if you will use commercial fertilizers liberally on the wheat you can get as good a crop of wheat on the corn stubble, after the corn is cut off in early September to put into the silo, as you would on a summer fallow.

GREEN CLOVER FOR THE SILO.

Will you please advise me in regard to filling silo with June clover. We cut it the usual way for hay and were calculating the second crop for seed.

Clinton Co.

S. B. R.

As has been stated many times in the Michigan Farmer green clover can be put into the silo. It is better to run it through a cutting-box and chop it up fine as it will settle and pack closer, but it can be pitched in when it is real green if it is properly tramped, but remember, that clover does not pack together and exclude the air and make as nice silage as a crop like Indian corn, and it would be better to weight the clover. After you have filled your silo with the green clover if you would put a board top on and weight it down with stones or some other heavy material to press it down, and use plenty of water, you can get fairly good silage. However, it is considered better by everybody who has had any experience to make the clover into hay and put the corn into the silo. Then feed the clover hay in connection with the corn silage. You want to feed some dry feed with the silage anyway and there is nothing better than this hay.

Where one has a liking for dairying there may be satisfaction in feeding a cow \$60 worth of grain, hay and fodder and then selling her milk for \$60; but it does not pay. There are many cows that will produce \$100 worth of milk from \$60 worth of feed.

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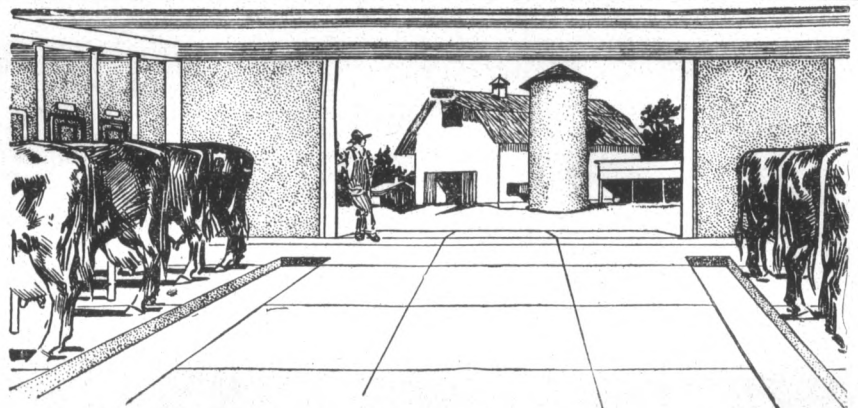
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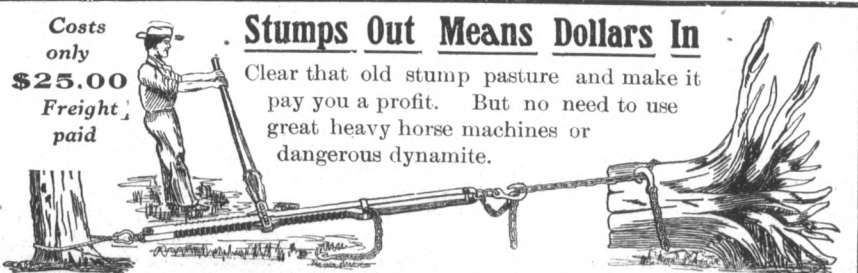
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## PRACTICAL SCIENCE.

### SPECIAL ARTICLES ON MILK.

(Continued).

#### Responsibility for Clean Milk is Divided.

As clearly emphasized in the work done by the Dairy and Food Department in the years mentioned in the article in last week's issue, the responsibility for the condition in which milk reaches the consumer is divided among the producer, the milk dealer and the consumer. To produce clean milk it is, of course, necessary that the surroundings under which it is produced are well kept in order that the milk may not become contaminated after it leaves the udder of the cow. This means that the stable surroundings must be kept clean, that the employees must have clean clothing and habits, and that the milk after being produced in a cleanly manner must be placed in a clean receptacle and kept cold.

#### Bottled Milk Best.

The bottling of milk is undoubtedly the most ideal way of handling the milk for city supply because, in this form it may go from producer to consumer without being opened. After having been placed in clean bottles which are to go direct to the consumer it should be transported as rapidly as possible either direct to the consumer or to the middleman or jobber, as the case may be. This middleman in most instances has nothing to do with the production of milk and indeed, is not familiar with its production. Probably most of the milk, in fact, we may say almost all of the milk delivered in cities passes through the hands of these middlemen or jobbers, whose business seems to be to handle as large a quantity of milk as they can without taking any special precautions regarding the sanitary conditions of the product or without concerning themselves to insure a clean, wholesome product to the consumer.

#### Milk Depots Need Attention.

It has been our experience that the milk depots operated by many of these middlemen are filthy and unsanitary in the extreme, and it is surely quite desirable that the inspection departments should keep these stations under close scrutiny. The old custom of transporting milk from house to house in shot gun cans is rapidly passing and should not in any intelligent community be longer tolerated. Likewise the custom of many milk dealers, especially in small towns, to fill bottles from these cans when enroute from house to house is especially to be condemned.

We have always advocated heretofore that the consumer should be very particular about the condition of the milk bottle when she returns it to the dealer. We have seen so many abuses of this courtesy extended by the consumers that we are almost inclined to doubt the wisdom of our previous position in this matter. A bottle that has been fairly well cleaned is, to many milk dealers, highly prized because it permits him to fill that bottle again without further cleaning and to thus pass it on to the next consumer. We are almost inclined to believe that the consumer should leave some evidence that the bottle is a used bottle so that it will necessitate the dealer's giving it a thorough cleaning when he receives them.

#### Consumers Must Take Care of the Milk.

The producer's problem and the jobber's problem are important and paramount in the problem of the city milk supply. Of great importance, however, is the consumer's duties in this matter. Milk produced under very favorable conditions on the farm and kept thoroughly as desired, by the dealer, when it reaches the consumer's hands may be ruined by being allowed to stand on the porch in the hot sun for two or three hours after delivery. Some simple device, such as the placing of a box on the back porch or some other simple arrangement should be provided to prevent the occurrence of this condition. It is imperative that the cities give renewed attention to this extremely important problem and it should be handled by inspectors who know something about milk and who have real knowledge regarding the food properties of milk and the opportunities for its contamination, and who have some appreciation of the dairyman's problem on the farm and who, by no means the least, is endowed with a sufficient amount of tact and courtesy so that he may secure the results outlined above with full co-operation on the part of all concerned.

### Certified Milk.

The term "Certified Milk" originated we understand, with Mr. Stephen Francisco, of Newark, N. J., and was applied to a product conforming to certain definite specifications. The principal point in the specifications so far as the term "certified" was concerned was that a milk to which this term is applied must conform to certain specific requirements and, in addition, be specially certified to by some definite authority. Mr. Francisco's idea was that this authority should be vested in a local medical commission composed of representatives of the local medical society. It will be observed at once that Mr. Francisco's idea of having certification by a medical milk commission anticipated that certified milk would be a product used generally under the direction of physicians. For convalescing patients and for infant feeding certified milk was therefore intended. With the advent of certified milk its use, however, became much more generally extended until at the present time—while still, strictly speaking, under the control of a medical milk commission—its use is more general among the people and is not restricted to cases under medical supervision.

#### Only Two or Three Certified Milk Producers in Michigan.

There are in this country a very limited number of certified milk producers who conform rigidly to the specifications laid down by Mr. Francisco. There are quite a number of milk producers who freely advertise that their milk is certified but this amounts to little more, in most instances, than a personal guaranty on the part of the producer that it is a high-grade produce and quite generally free from gross contamination.

#### Specifications for Certified Milk.

The general specifications which apply to certified milk aside from its certification by medical milk commission are that, among others, the cows furnishing the milk must be regularly tested by a competent veterinary and proven free from tuberculosis and other infectious diseases. The stable surroundings must conform to rigid cleanliness; the milk must be free from sediment and unpleasant odors and must contain not to exceed 10,000 bacteria per cubic centimeter. Certain other specifications such as apply to the personal habits of the attendants are likewise included in the specifications coming under the term "Certified Milk."

To produce certified milk required considerable preparation and great care on the part of the milk producer. It is idle to assume that a dairyman may produce certified milk, or milk capable of certification, who has no sense of appreciation of the various factors involved in such product. For instance, a man who has no understanding of bacterial growth, at least in a general way, or a man who is not in sympathy with the production of extremely clean milk, cannot successfully produce milk capable of certification.

In this respect we think comment on the attempts of certain communities to procure certified milk are timely and interesting.

#### Lansing's Effort to Secure Certified Milk.

The city of Lansing has for several years been endeavoring to procure a supply of certified milk. Meeting after meeting of milk producers and dealers has been held and the various points involved have been discussed time and again. Most dairymen in the vicinity of Lansing have thus had an opportunity to learn what factors are involved in the production of certified milk but we are advised at the present time that though this campaign has been carried on for two to four years there is now no certified milk supply, at least locally, for the city of Lansing. In a city the size of Detroit a milk concern can well take the risk of supplying a certified milk because the population is sufficiently large so that a reasonable business is assured at once when the product is put upon the market, but in a city no larger than Lansing the great problem confronting the producer is whether any investment he may make, which investment in most instances is, of course, considerable, will be warranted by the demand for his product as soon as it is produced. It is idle to assume that the production of certified milk involves no especial expense. Nothing is gained by taking this position because, in the very first attempt of a dairyman to pro-

(Continued on page 225).



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DETROIT, SEPT. 14, 1912.

## CURRENT COMMENT.

During the closing days of the late session of congress, legislation was enacted which will provide for a more adequate general parcels post in the United States. This law, however, is not in line with the ideas of many citizens who have favored a parcels post similar to those which are in successful operation in other countries. The provisions of this bill have been summarized substantially as follows by Senator Bourne, chairman of the Senate Committee on Post Offices and Post Roads, whose general idea on this subject is reflected in the terms of the law.

Any article is mailable if not over 11 pounds in weight nor more than 72 inches in length and girth combined, provided same is not likely to injure the mails or equipment. A flat rate of one cent per ounce is provided for parcels up to four ounces in weight, regardless of distance. For parcels above four ounces in weight, for the first pound, each additional pound and a maximum of 11 pounds, the rate is as follows, depending upon the distance:

For rural routes and city delivery the charge will be 5 cents for the first pound and 1 cent for each additional pound, or 15 cents for the maximum of 11 pounds, respectively. Within a 50 mile zone the similar charges are 5 cents, 3 cents, and 35 cents; within the 150 mile zone 6 cents, 4 cents and 46 cents; 300 mile zone, 7 cents, 5 cents and 57 cents; 600 mile zone, 8 cents, 6 cents and 68 cents; 1,000 mile zone, 9 cents, 7 cents and 79 cents; 1,400 mile zone, 10 cents, 9 cents and \$1; 1,800 mile zone, 11 cents, 10 cents and \$1.11; over 1,800 miles, 12 cents, 14c and \$1.32.

Under the law the Postmaster-General may also make provision for indemnity insurance and collection on delivery, with additional charges for such services and may, with the consent of the Interstate Commerce Commission, modify rates, weights and zone distances when experience has demonstrated the need therefor.

This law becomes effective January 1, 1913, and, while as above stated it is not just such a law as the majority of the advocates of a better parcels post had in mind, yet it will give a much more efficient service than the old law under which the weight limit of parcels which might be sent by mail was four pounds and the cost one cent per ounce or 16 cents per pound. Under this law the exception of small parcels weighing four ounces and under at a flat rate of one cent per pound, as under the old law, will provide for the mailing of catalogs and other similar literature or small articles of all kinds without reference to the

zone system which is established for heavier parcels. Also, the cost of sending parcels up to the old weight limit of four pounds for long distances through the mail will be cheaper than was the case under the old schedule. For instance, the cost of sending a four-pound package for a distance exceeding the largest of the prescribed zones would under the new law be 54 cents, as compared with 64 cents under the old schedule, while for shorter distances the cost would be very much less, running down to 14 cents for the 50-mile zone.

A thorough study of these rates will convince the reader that this parcels post law will be of considerable benefit to the people of the country through the added convenience afforded for sending packages through the mails. The provision which permits the Postmaster-General to revise the rates, weights and zones by and with the consent of the Interstate Commerce Commission also leaves the way open for a cheapening of the cost of service given at such time as the growth of the business may warrant it. This feature of the law, carried out in good faith, is a redeeming one which will enable an efficiently conducted post office department to work out a satisfactory system of parcels post under the operation of this law, if the officers in charge are so disposed.

When the terms of this law are compared with the parcels post law of foreign countries, however, it does not show up well in comparison. In England, where the parcels post has been most highly developed, the cost of sending an 11 pound package any distance is 22 cents, with a minimum rate for a one-pound package of six cents. In Germany, where the zone system exists for parcels above 11 pounds in weight, the first 11 pounds are subject to a flat rate of 12 cents for any distance, or a minimum rate of six cents for ten miles, while additional cost per unit of 2.2 pounds over the 11 pounds, according to zones, varies from one cent to 12 cents.

The argument has been made that in these countries the distances are so short as compared with those over which mail is carried in the United States as to make the comparison unfair. However, in European Russia, with an area of over 2,000,000 square miles, the flat rate charge for packages of 12 pounds as the maximum weight, is 34 cents for any distance, with a minimum rate of 13 cents up to two pounds, while for packages weighing more than 12 pounds and up to 120 pounds the charge varies according to distance. In China with an area of more than 4,000,000 square miles the weight limit of packages is 22 pounds, with a maximum charge of \$1.00 for any distance and a minimum of 15 cents for one pound or less.

It will thus be seen that under the international postal agreement parcels may still be sent to foreign countries cheaper than from one point to another in our own country, but we believe that with the general interest which has been exhibited in the proposition of an adequate parcels post, together with the greater enthusiasm which will develop when the benefits of this law become apparent, the operation of this law will result in the gradual cheapening of the cost of transporting parcels in the mails until a comparison with the systems in vogue in foreign countries will be more favorable to the United States. Should this be the result the people of the United States have every reason for self-congratulation, as it is better to grow into a big business such as the parcels post business in the United States is sure to become than to go into it on an extensive scale at the very start.

Enough has been published in our columns regarding the plans and prospects of the State Fair, which will be on at Detroit next week, to convince every reader that it will pay him to attend. It will be time well spent in an educational way for every member of the farm family, not to mention the recreation and pleasure which a trip to Detroit and the fair would afford.

## HAPPENINGS OF THE WEEK.

### National.

The American Bankers' Association is in session in Detroit this week. The delegates are expressing general belief in continued prosperity regardless of the results of the coming election.

While riding a motorcycle at a speed of 92 miles per hour, Edward Hasha plunged over the rail of the motorcycle course at Newark, N. J., killing himself

and five others. A score of bystanders were hurt. Fully 5,000 people witnessed the accident.

The situation at Jackson prison where a riot recently occurred, when a number of disorderly prisoners endeavored to make their way to liberty, is improved. The board has authorized the use of severe measures to impress upon the inmates that the state intends governing the institution. Three of the companies of troops called out to prevent the escape of the prisoners have returned home. A small guard is to be retained, however, as long as seems necessary.

During the first week that the new liability law enacted by the last special session of the legislature, was in force, 1,200 employers of labor made application to come under the act.

Complaints are being received by the state railroad commission from autoists regarding the condition of railroad crossings. The rails often stand two or three inches above the planks. This necessitates slow driving and frequently causes the autos to stop on the tracks, exposing the machine and occupants to the danger of being run down. The commission has issued an order that all crossings be repaired in 60 days. The state law specifies that the planking be at least one inch above the rails.

An attempt to open the paper mills in Kalamazoo with strikebreakers will be made this week.

The progressive party of New York state nominated Oscar S. Straus, former ambassador of the United States to Turkey, and secretary of commerce and labor, as candidate for governor.

The state of Minnesota is adopting an innovation by taking a complete census of the health of her school children.

Success has attended the conduct of the co-operative store opened a month ago for the benefit of the soldiers and sailors in Philadelphia. The stock of the enterprise is held by service officers.

Attorney General Franz Kuhn has been appointed to the supreme bench of Michigan to succeed the late Justice Blair.

Electric cars collided south of Mt. Clemens, killing Fred Jordan and seriously injuring Mrs. Henry Ludeman.

Geo. M. Whitaker, secretary of the National Dairy Union and president of the Farmers' National Congress, died at Fort Atkinson, Wis., August 30.

Judge Tuttle, of the United States district court for the eastern district of Michigan, has called a federal grand jury to sit at Bay City for the northern division of the district.

Hon. Roscoe D. Dix, former auditor-general of Michigan, died last Thursday at his home in Berrien Springs.

Hon. R. L. Taylor, former state senator and known over the state and country by bee-keepers, died at Lapeer, Mich., at the age of 72 years.

The necessary funds have been promised for the erection of the Perry memorial at Put-in-Bay, Ohio. The column to be erected will cost over \$350,000. It is expected that excavation for the foundation will begin next week.

The early reports of the election held Monday in Maine shows that the republican candidate for governor, Wm. T. Haines, won out by about 3,000 votes over Gov. Plaisted. The incomplete reports also indicate that the state legislature will be republican.

Bankers in session in Detroit from practically every state of the Union are discussing national currency reform. That the bankers themselves are not fully agreed upon any one system is evident from the discussions which follow proposals.

The electrical works of the city of London, Eng., burned Monday night, throwing the city in darkness and causing much excitement.

### Foreign.

An aeroplane got out of control at a meet at Gray, France, and crashed down on a score of persons, killing four outright. Ten others were severely injured.

The situation in Nicaragua is changed. Federal troops are reported to have occupied Pajaya and Saratoga, important positions in the defense of Masaya a city of considerable importance to the rebels. The federals also captured the town of Catarina. Detachments of American marines from the Philadelphia and the cruiser Colorado arrived at Managua on September 6. They will be ordered to several points to open up railroad transportation.

Prof. Steffansson, who has completed a five-year exploration tour in the northern part of North America, believes he has found descendants of Lief Erikson's colony who came to Greenland from Iceland in the year 1000. On Victoria Island, 30 degrees east of the mouth of the Mackenzie River, he discovered a tribe of about 1,000 white people of whose presence in that locality he can account for only by believing them to be descendants of the Danes who early discovered Greenland and the North American continent.

The manner in which Mexican rebels are crowding toward the American border is causing considerable alarm in the border states. Thus far no additional American forces have been ordered to the front, but officers are active in getting troops ready to move.

It is reported that between 30 and 40 thousand deaths have occurred in Chekiang, Province of China. On August 29 the flood devastated portions of that province, causing the great loss of life. It is impossible to estimate the loss of property and crops.

## MICHIGAN CROP REPORT.

Wheat.—The estimated yield in the state is 10, in the southern counties 9, in the central counties 11, in the northern counties 14 and in the upper peninsula 20 bushels per acre. The quality as compared with an average per cent is 73 in

the state, 70 in the southern counties, 67 in the central counties, 84 in the northern counties and 90 in the upper peninsula. The total number of bushels of wheat reported marketed by farmers in August at 74 mills is 81,269 and at 79 elevators and to grain dealers, 71,476 or a total of 152,745 bushels. Of this amount 125,124 bushels were marketed in the southern four tiers of counties, 15,858 in the central counties and 11,763 in the northern counties and upper peninsula. The estimated total number of bushels of wheat marketed in August is 500,000.

One hundred mills, elevators and grain dealers report no wheat marketed in August.

Oats.—The estimated average yield in the state is 32, in the southern counties 23, in the central and northern counties 30 and in the upper peninsula 35 bushels per acre. The quality as compared with an average per cent is 84 in the state, 83 in the southern counties, 82 in the central counties, 89 in the northern counties and 95 in the upper peninsula.

Rye.—The estimated average yield in the state and southern counties is 13, in the central counties 12, in the northern counties 14 and in the upper peninsula 22 bushels per acre.

Corn.—The condition of corn compared with an average per cent is 73 in the state, 79 in the southern counties, 61 in the central counties, 71 in the northern counties and 72 in the upper peninsula. The condition one year ago was 83 in the state, 84 in the southern and northern counties, 79 in the central counties and 89 in the upper peninsula.

Beans.—The probable yield of beans compared with an average per cent is 78 in the state, 81 in the southern and northern counties, 71 in the central counties and 77 in the upper peninsula. One year ago the probable yield in the state was 78, in the southern counties 76, in the central counties 75, in the northern counties 84 and in the upper peninsula 85.

Peas.—The estimated average yield in the state is 16, in the southern counties 15, in the central and northern counties 14 and in the upper peninsula 20 bushels per acre.

Potatoes.—The condition of potatoes compared with an average per cent is 88 in the state and northern counties, 91 in the southern counties, 78 in the central counties and 101 in the upper peninsula. The condition one year ago was 62 in the state, 57 in the southern and central counties, 69 in the northern counties and 85 in the upper peninsula.

Clover Seed.—The condition of clover seed compared with an average per cent is 79 in the state, 78 in the southern counties, 81 in the central and northern counties and 96 in the upper peninsula. The condition one year ago was 64 in the state and central counties, 62 in the southern counties, 66 in the northern counties and 88 in the upper peninsula.

Live Stock.—Live stock throughout the state is reported in good condition.

## NATIONAL CROP REPORT.

Spring Wheat.—Condition 90.8 per cent of normal at time of harvest, compared with 90.4 on Aug. 1, 56.7 per cent at time of harvest last year and 76.5 per cent the ten-year average. Indicated yield per acre is 15.6 bu. per acre, compared with 9.4 bu. last year and 13.4 bu. the five-year average. Total estimated production will be about 300,000,000 bu., compared with 191,000,000 bu. last year, and 201,000,000 in 1910.

Oats.—Condition 92.3 per cent of normal at time of harvest, as compared with 90.3 per cent on Aug. 1, 64.5 per cent last year and 78.8 per cent the ten-year average. The indicated yield per acre is 34.1 bu. compared with 24.4 bu. last year and 28.4 bu. the five-year average. Estimated total production, 1,290,000,000 bu., compared with 922,000,000 bu. last year and 1,186,000,000 bu. in 1910.

Barley.—Condition at harvest 88.9 per cent of normal, compared with 89.1 per cent on Aug. 1, 65.5 per cent at time of harvest last year and 81.2 per cent the ten-year average. The indicated yield per acre is 27.6 bu., compared with 21 bu. last year and 24.8 bu. the five-year average. The estimated production will be 209,000,000 bu. compared with 160,000,000 bu. harvested last year.

Corn.—It is estimated that the total corn yield will reach probably 2,995,000,000 bu., exceeding the record crop of 1906 by 68,000,000 bu. and last year's crop by 464,000,000 bu.

Potatoes.—The estimated total yield of potatoes is 398,000,000 bu., which is 9,600,000 bu. greater than the record crop of 1909 and 105,000,000 bu. greater than last year's crop.

Hay.—The preliminary estimate of the total production is 72,000,000 tons, compared with 55,000,000 tons last year and 69,000,000 tons in 1910. Quality is estimated at 92.1 per cent, compared with 90.3 per cent last year and 91 per cent the ten-year average.

Apples.—Condition 87.9 per cent of normal on Sept. 1, compared with 65.8 per cent on Aug. 1, 65.2 per cent on Sept. 1 last year and 53.8 per cent the ten-year average.

## CROP AND MARKET NOTES.

Lapeer Co., Sept. 7.—The past week has been the hottest thus far this year. This is the kind of weather that is helping to mature corn, although there are many fields that we think will not produce any ripened corn. Many fields of potatoes are looking fine, while others indicate poor prospects. The same can be said of the bean crop and also clover seed. Big preparations for fall grain noticed, but there does not appear to be any grain yet sown. Quite an acreage of sugar beets in this country and many fields are looking splendid, while others do not promise as well. Apples, sprayed or unsprayed, are showing a liberal yield



of nice fruit but prices for same are low, as they are also for potatoes. Hog prices are advancing and the prices (at market) for all kinds of meat are out of sight. New seedling this year is exceptionally fine. Wages hold high. County road law not liked by many.

**Eaton Co., Sept. 7.**—The warm and hot weather of the past two weeks has boomed the corn crop in fine shape, the beans, too, but both crops need rain now, the beans especially. Some sprayed orchards will give big crops, others very little. Wheat, 98c@1.01; beans, hand-picked, \$2.30; corn, 80c; rye, 65c; oats, 28c; wool 20@25c; potatoes, 50c; butter, 22c; eggs, 19@24c; hogs, 7@8½c; calves, 5@8c; cattle, 2½@5c; sheep, 2½@3c; lambs, 4@5c; hay, \$8@10.

**Kalkaska Co., Sept. 6.**—Very warm today, almost the first summer weather we have had. It has rained three or four days a week since the middle of July. Impossible to get grain in condition to thresh. Some oats still to harvest on account of bad weather. Corn and beans have made a good growth, but will require 20 to 30 days to mature. Potatoes not doing well; considerable blight and some rot. Pastures fine. Stock looking good. Not many hogs for market. Fruit scarce. With 10 days of good weather the ground will be in splendid condition for fall seeding.

**Allegan Co., Sept. 4.**—The few warm days of late have helped to bring corn along, which is a poor crop. It has also caused considerable blight in potatoes. Beans are looking good and so is buckwheat. There is being harvested a very large crop of second cutting of clover. Many apples are scabby, even where spraying has been done. Considerable wheat is being marketed at a little above the dollar mark. The peach, pear and plum crops are very small. Tomatoes are about half a crop. Onions are good. All stock is looking well. Considerable wheat will be sown.

**Gratiot Co., Sept. 2.**—Wet weather still prevails. A few drying days, Aug. 23 to 28, allowed those farmers who were on the alert to secure their oats. Something like 70 to 90 per cent were put up. Those who have threshed report from 40 to 60 bushels yield. Wheat is very poor; in some cases the entire crop will scarcely pay for the fertilizer used. Fall plowing for wheat is well under way. Corn is getting to be boiling corn, and since we may now expect a killing frost at any time it is not safe to predict the outcome. Four to six weeks of good weather will give us a 25 to 75 per cent crop, while some fields in that time will be 90 to 100 per cent good. Beans promise from 50 to 75 per cent of a normal crop. Some fields are almost entirely destroyed while others appear but little damaged. The pods are filling well with almost no blank spaces. Late potatoes on drained soils promise a good yield. Sugar beets appear to be getting a good growth. The county fair was not largely attended, as it rained or threatened to do so all week. Very little farm produce was exhibited. The stock pens were all taken and the poultry department was well represented.

**Northern Isabella and Southern Clare Co.'s, Aug. 28.**—Wet! Wet! Wet! so it is almost impossible to harvest oats and thousands of acres stand in the field badly damaged. Beans keep growing and blowing and not ripening and the bean harvest will be late, and if this weather continues it will be next thing to an impossibility to get them cured. But little wheat being sown. Pastures good and all kinds of stock doing well. Wheat, \$1.01@1.02; rye, 63c.

**Alcona Co., Aug. 31.**—We have had lots of rain all of this month and there is very little fall plowing done, mostly sod, the stubble being too wet to do anything with at all. Plenty of hay in this county and a good share was put in dry, although there are lots of stacks in the field. Just how they are keeping in this rain we do not know. A few fields of second crop clover but can not tell at this writing if they will produce any seed on account of so much rain. Some wheat threshed and some in the dry and a lot rotted in the field or was so wet when threshed that it is no good for market. Oats are being threshed in some localities. They are pretty wet and a lot of oats are still standing in the field with the ground so soft that it is impossible to get in the field with a binder to cut them. Wheat, 96c; oats, 32c; eggs, 18c; butter, 21c. Some peas are ripe and taken care of. The late crop will not amount to anything, if we do not get some warm, dry weather. Beans are drowned out in spots and it would take three weeks of good dry weather to ripen what are still standing. The good roads were defeated in our election of Aug. 27.

**Mecosta Co., Aug. 28.**—August was nearly as wet as July. Potatoes on low land almost a failure around here, and no potatoes that will give a very large yield. Should it be good weather at harvesting time, beans will be a good crop. Unless we have a late fall there will be lots of soft corn. One of the largest apple crop this year every grown in this section. Farmers are planting more fruit trees of late than formerly and find that with proper care we have an excellent soil and climate, especially for apples and cherries.

**Wayne Co., Sept. 2.**—The weather still continues very wet, being almost impossible to get any farm work done. Very little plowing being done for wheat, the ground being entirely too wet. Lots of oats out in the field and spoiling in the shock; some oats being threshed with report of good quality and quantity. Corn is earing out fair, but late. Late potatoes looking fine. There will be very little clover seed through these parts, it being too wet for it to fill. Wheat, \$1; oats, 40c; corn, 68c; hay, \$10@15, according to quality; butter, 24c; eggs, 20c.

# State Fair Piano and Player-piano Specials

Sensational Bargains for Fair Week to Still More Widely Spread our Reputation as the HOUSE OF GREATEST PIANO VALUES—Opportunity Presented Through Fortunate Purchase of well-known Manufacturer's Overstock—Instruments on Sale at Our Booth in Main Bldg., State Fair Grounds, Detroit; also at our Store, 243-247 Woodward. Not likely that one will be left when fair closes—Intending Purchasers lose no Time in Investigating This. Note following brief description of instruments:

## UPRIGHT PIANO \$188

Late design; double veneered mahogany or oak case; full size; modern in every detail; full metal plate; excellent workmanship throughout; sweet, clear tone; complete satisfaction assured through privilege of Free Exchange any time within a year—A Piano which other dealers would charge \$250 to \$300 for—our price only \$188. Terms, \$10 down, \$6 monthly; or easy quarterly payments arranged. FREIGHT PAID anywhere in the State. Stool and Drape Free.

The Player Piano is furnished in very handsome mahogany or oak case—plays 88-note music—expression devices are easy to operate and wonderfully responsive. It is well-made, and, of course, available for hand playing whenever desired. Tone is full and rich—a \$500 instrument—Sensational special at \$368. Pay \$25 down, \$10 monthly; or quarterly if preferred. Shipped anywhere in Michigan, FREIGHT PAID. Player Bench and selection of Music Rolls included.

Make our Booth or Store your headquarters. There will be an abundance of well rendered music at our Booth, and SOUVENIRS FOR ALL. Make it a point to see these specials, and the other famous instruments of our line—then you'll readily understand how it is that WE HAVE SOLD MORE PIANOS IN MICHIGAN THAN ALL OTHER DEALERS COMBINED!

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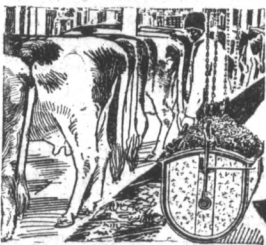
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Fertile Farms and unimproved lands in Delaware, delicious fruits and ideal homes. For information only, Address, State Board of Agriculture, Dover, Delaware.

For Sale—By Owner—120-acre farm in Oceana Co., 40 acres improved; 30 timber; balance pasture; good productive soil; near school and town. A. D. CLARK, Hesperia, R. No. 4 Michigan.

FOR SALE—TOWAR FARM, situated 4 miles from Lansing, near Agricultural College, 320 or 480 acres. An excellent live stock or dairy farm. Large brick residence, steam heat and plumbing. Brick tenant house, large barns, 3 good wells. Moderate price and easy payments. J. D. TOWAR, East Lansing, Mich. Citizens Phone.

CENTRAL MICHIGAN. Write for list of stock and Grain Farms, also our booklet "Facts about Central Michigan", giving complete information regarding the finest farming district in Central Michigan. HOLMES REALTY CO., Lansing, Mich.

FOR SALE—Three quarter sections of Presque Isle County, Mich., clay soil, corner, ing at school house ½ miles south of Millersburg. Well watered; well grassed and easily cleared. Price \$10 an acre—easy terms. Also partly improved farms at \$15 and \$20 an acre. High class land only. JOHN G. KRAUTH, Rainy Lake Ranch P.O., Millersburg, Mich.

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Under new 3-year law. 500,000 acres now open near railroads and markets. Our Homesteader's Guidebook tells just how to locate, acquire title, number of acres vacant in each county and full text of new law. Price 25c. FARM PUB. CO., Little Rock, Ark.

For Sale Farms—Fruit farm of 37½ acres in village of Farmington, in richest apple belt of Oakland county. Right on Grand River Avenue. Cement sidewalk in front. 200 bearing apple trees, 400 young apple trees, one-half acre grapes, 25 young cherry trees, variety of berries. About 6 acres of woods with elegant flowing springs. Dandy little house newly decorated, electric lights, hardwood floors down stairs. Electric car service, and just 19 miles from city hall, over best road in Michigan now nearly finished. An ideal fruit farm and home. Price five thousand dollars (\$5000). Apply on farm. OTTO SHAWPETER, West end of Village.

## 217 Acres, \$1600 Cash Income Last Year \$3500.

Located in New York, the country's greatest hay, dairy and potato state, cutting 140 tons hay and with spring-watered pasture for 35 cows, machine-worked fields, large valuable woodlot; this is the real farm bargain of the year. Income last year from milk, stock, poultry, vegetables, etc., was \$3500; R. R. Station, creamery, milk station, only three miles, school and neighbors near, mail delivered, 2-story 9-room house, 40x78 barn, 2 silos, numerous other out-buildings, all in good condition; owner has other business, must sell at once; if taken now only \$5600. \$1600 cash, balance easy terms. Further particulars and traveling instructions to see this and another of 50 acres for \$1200, page 45, "Strout's Farm Catalogue '12", 2nd Edition, copy free. Station 101, E. A. STROUT FARM AGENCY, Union Bank Bldg., Pittsburg, Pa.



## HORTICULTURE

### GRAPE INVESTIGATIONS IN YORK STATE.

The work of the Vineyard Laboratory at Fredonia, N. Y., has been continued this year, under an emergency appropriation made for its continuance by the board of managers of the state experiment station at Geneva, after Governor Dix vetoed the special bill for its support last spring. The work has been very valuable. Three particular lines of work have borne results this year worth mentioning.

First of all the level system of intensive cultivation in use on the station vineyards resulted in one of the finest foliage growths and best settings of fruit there is to be found in the entire grape belt. The crop of grapes at the station vineyards will be equal to that of last year, or very close to it, and this is due vary largely to the level and intensive cultivation. The first plowing of the spring, to turn under the cover crops growing in the vineyard rows, was up to the grape vines. This left a dead furrow in the middle of the row. The use of a narrow disk, followed by spring-tooth harrow, cultivator, wheel hoe, and smoothing harrow, leveled this down. Frequent cultivation during a dry spell in June which followed the early wet, cold weather, kept a dust mulch on the top of the vineyard soil, and the unusual growth of the vines is so apparent as

from the under side. Vines whose foliage loses its color and life at this stage of the game, will not properly mature their fruit, and it has been chemically tested out in the government laboratories that a grape ripened on a vine seriously injured by leafhopper is useless for either grape juice or wine purposes. If offered in the markets these grapes will only depress the prices of all grapes offered. And so the efforts of the vineyard laboratory staff to induce growers to spray, and their demonstrations carried on co-operatively, throughout the belt, have been of great importance.

The package situation is very satisfactory. Growers are loading up early with baskets and crates. The price for 8-lb. baskets remains at \$19 per thousand to contract growers supplied by the co-operative company, and is from \$19 to \$20 from independent makers. The 20-lb. baskets are held at \$40 per thousand at all points. This is the same price as last year. With a 40 per cent shrinkage in crop below that of last year, and an increase in the amount going into the local grapejuice factories, for which they supply the crates, there should be no shortage of containers this year.

New York.

A. M. LOOMIS.

### CARE OF GARDEN PATCHES OF SMALL FRUITS.

On general farms are likely to be found small areas devoted to the growing of small fruits for the table. Most of such areas are neglected and are simply breeding places for weed and insect pests. I



Marketing is Now Recognized as an Important Part of the Fruit Business.

to be noticeable from the highway passing the laboratory farm.

The use of lime and legume cover crops on experimental plats where last year no results in fruit production could be noted by careful weighing, have this year made notable results in larger growth of foliage, and heavier setting of fruit. The growth of clover on limed rows is so much larger than on unlimed rows, that it is apparent to a casual passer by. The plats where cover crops have been used are so much better than those where none have been grown as to leave little room for doubt that the increase in fruit yield will show up on the scales this fall, and that by increasing the fertility of the soil, and the vigor of the vine in this way the alternating of big and little yields of fruit may be replaced by constant large yields every year.

The third work done by the station which is of importance is the continuance of their crusade against the grape root worm, and the grape leafhopper. The grape root worm is particularly active this year. The use of the sweetened poison spray is proving effective in many vineyards, but it has defects which the vineyard entomologist, Frederick Hartzell is seeking to overcome. It is not sufficiently adhesive to remain on a vine after a rainfall. The arsenate of lead which is used with the molasses loses its adhesive qualities in this solution. Its use is recommended and has been demonstrated on dozens of vineyards, until a better poison which will reach this troublesome bug is being sought. The leafhopper is under control wherever the nicotine solution is used, but very many vineyardists refuse, yet, to believe that their crop is in danger and so neglect to spray. The attack of the leafhopper is particularly violent this year, and a heavy damage will be done. Some vineyards already show by the turning brown of the foliage, the results of this insect which sucks the life juice of the leaf

am writing from my own experience. Our time is so taken up with the more important work that we have little time to give the currants, gooseberries, raspberries, etc. There are odd times when we could do this work as well as not, did we know what to do with the little time at our disposal. With these limited areas tucked away in the corners of the vegetable garden it is impossible to cultivate them with a horse and as the hand work required to cultivate in proper shape is too extensive to be ever thought of, these areas are left to take care of themselves. In a short time there is a struggle for existence going on between fruit plats and the weeds.

The other day as I was going past an old straw stack bottom, which I intended hauling on to the oat stubble preparatory to plowing for wheat, it occurred to me that in that rotted straw was a solution for the question of the neglected berry bushes. I set a man to work mulching the currants and I was surprised at the little time it took to mulch them thoroughly. As the work had to be done with a wheelbarrow it was somewhat tedious but it was done quite quickly, nevertheless. I don't believe that mulching as late as we have this year is the best possible method, but it was the only way we could think of at this time. Next year we shall follow this plan but will have it done as early in the season as possible so as to prevent weed growth. Of course, it is better to do it late than not at all, as the mulch will kill out the weed growth and grass sod so the soil will be in better shape for the fruit next year.

These small fruits have not suffered from drouth through lack of cultivation this year because the rains have been frequent enough to keep them supplied with moisture.

We have often thought that it would be better to cease trying to grow small fruits for the table and buy of someone

who grew them commercially. But after one or two dry seasons when our neglected fruits were a failure and we found it all but impossible to get a few quarts for our own table (for it was so much bother to both the other fellow and ourselves), we gave up the idea of buying and settled down to growing them for ourselves.

There are many reasons why it is better for the general farmer to grow his own small fruits than it is for him to depend on buying them: Usually the work at home is so engrossing that the farmer and his family lose track of the seasons for the different fruits, and do not think where they are to be had so do not have them at all. Again, the time to go after the fruit can not be taken at the particular time when they are thought of so the chances are that they do not get as much of the small fruit as they would like, or need. But by following a mulching method the berry patches can be kept in fairly presentable shape and quite productive also.

Berrien Co.

R. G. THOMAS.

### SAVING INJURED TREES.

That last winter was very trying to young apple trees those who set orchards the previous spring well know. Some trees were killed outright, others came through with dead tops and many were seriously weakened, as has since been made evident. What could be done with them was then the important question.

Such a problem will be solved in different ways, depending upon the man. One who jumps at conclusions and acts upon impulse will probably pull out the trees, declare fruit growing a failure and use the ground for other purposes. The philosopher will await further developments. The lazy man—but he need not be considered.

If the trees were not entirely dead they may have sent out shoots along the trunk or they may have sprouted below the surface of the ground. In either case they are worthy of further attention. Good trees may be made of them.

If there are some strong shoots along the trunk, select the most desirable and remove all the others. The vigor of the tree will thus be concentrated, the result being the production of a few strong shoots in place of many small ones, or something like a tree instead of a bush. Those who desire low heads will save three or four branches, if there are that many, 18 inches or more above ground and start a new head. The old top will be cut off close to the highest shoot, which then becomes the leader. If the new growth has started too low for making a head, then only one is left, the head to be developed later.

Sprouts that come from below the bud or graft will not, of course, be true to name. If left to themselves they will result in trees of natural fruit, probably worthless. Such trees will need budding or grafting, but this need not discourage anyone, since neither process offers any serious difficulties.

Stock in the nursery row is budded near the ground, but this is not necessary with a tree that is not to be moved. Buds may be set where it is desired that the branches should start out to form the head. To be sure, this requires more labor, since three or four buds are set instead of one, but good results are claimed for the process. The comparatively few trees in an orchard would admit of treatment that would be impracticable in a nursery. Budding is really a simple process. It is something that every orchardist ought to understand. The time for setting buds is in the summer.

Grafting is a cruder process than budding. As it is done in the spring it can be resorted to if the budding of the previous summer has proved a failure.

Will it pay to save such trees? That is the question which is finally to be considered and which must be settled in each orchard by itself. Trees which are already in the ground are somewhat like a bird in the hand. They are worth more than those which are somewhere else. If good trees can be made of them it is better than to take the chances of planting next spring. But they ought to receive careful attention.

Last winter was a very severe one for the nurseries. Thousands of trees were killed. This means that stock for planting next spring will be scarce and high. For that reason every tree ought to be saved that can be. Give the tree a chance, even though the outlook is not very encouraging.

Oakland Co.

FRANK D. WELLS.

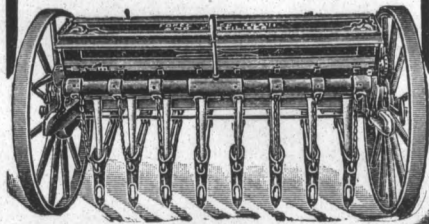
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## POULTRY AND BEES

### SOME EXPERIENCE IN HASTENING THE MOLT.

Early molting is desirable as it enables fowls to begin winter in good condition. For some years it has been claimed that fowls may be caused to molt as early in the fall as desired. Briefly, the method consists in withholding food from the fowls for a few days, which stops egg production and reduces weight, and then feeding heavily on a ration suitable for the formation of feathers and the general upbuilding of the system.

I put this method to a test a few years ago with some White Leghorns and some mixed fowls, two pens of each. One pen of each was not given any feed for two weeks except what they could get in their runs, which had been sown in oats in the early spring. There was but little oats to be found by this time. The other two pens were fed as usual on beef scraps, wheat, corn and oats. At the end of the two weeks all were fed liberally and alike. In about a month after the test began the pen of "starved" White Leghorns had practically a new coat of feathers, had begun to lay, and within a week or so nearly half of the hens were laying regularly, while the lot of "fed" fowls were just beginning to molt and the egg production had practically stopped. The treatment of the mixed stock affected them in much the same way as it did the others.

For a period of ten days, beginning when the heavy feeding was begun, the dropping boards in the White Leghorn houses were not cleaned. At the expiration of this time examination was made and a great accumulation of feathers from the "starved" lot of fowls, and a relatively small amount of feathers from the other lot was found.

The conclusion is that mature hens which are fed very sparingly for about two weeks and then receive a rich, nitrogenous ration, molt more rapidly and more uniformly, and enter the cold weather of winter in better condition than similar fowls fed a full ration continuously during the molting period.

Texas.

A. M. LATHAM.

### EFFECT OF FEED UPON THE COLOR OF THE YOLKS OF EGGS.

Since it is often desirable to have eggs of the best quality and show to meet the requirements of some markets, the work of proving, if possible, that certain feeds would produce eggs of certain colored yolks was undertaken by the Maryland station.

One hundred and twenty single comb White Leghorns, which had been procured into three lots of forty each according to their origin, age, size, etc., were housed and cared for alike except that one pen (No. 2) received its whole grain in the form of corn, another (No. 4) in the form of wheat and the third received a mixture of corn and wheat.

The rations were as follows: Each had a nutritive ratio of approximately 1:4.1.

Pen No. 2 was fed: Corn, 9 parts; bran 6 parts; gluten meal, 4 parts; beef scrap, 2 parts.

Pen No. 4 was fed: Wheat, 9 parts; bran, 6 parts; wheat meal, 4 parts; beef scrap, 2 parts.

Pen No. 5 was fed: Wheat, 4½ parts; corn, 4½ parts; bran, 6 parts; wheat meal 2 parts; gluten meal, 2 parts; beef scrap, 2 parts.

All pens were allowed free access to narrow yards which furnished a very limited amount of green stuff. All were alike so far as the amount of green food furnished was concerned.

First Test.—Yellow corn.

Preceding this test the corn used in the rations of pens two and five was yellow whole corn.

All the eggs laid by these pens on March 23, 24 and 25, 1911, were saved. The date, pen No. and hen No. was marked on the eggs and only one from each hen used in the comparison. 31, 32 and 36 eggs were obtained from pens 2, 4 and 5 respectively.

On May 3, all the eggs were boiled, cut in half and placed in parallel rows for comparison. In every instance the eggs from pen No. 2, (corn fed lot), showed a yolk with a deep yellow color. Every egg from pen No. 5, (corn and wheat fed lot), had a yolk of a good yellow color. With but three exceptions the eggs from the wheat fed lot (No. 4) had a yolk of

a very pale yellow color. These three exceptions can probably be accounted for in some of the hens getting green feed from the yards.

Second Test.—White corn.

The same pens were used and they were cared for in the same manner as before except that for five weeks previous to making the comparison pen No. 2 (corn fed) received white corn as its whole grain. Pen No. 5 still received yellow corn and wheat and pen No. 4 received wheat.

Pen No. 2 when fed white corn produced eggs having a very pale yolk in all cases except one. Pen No. 4 when fed wheat produced eggs having a very pale yolk in all cases except one. Pen No. 5 when fed yellow corn and wheat produced eggs having yolks of a good yellow color in all cases.

These results were so conclusive that it was thought unnecessary to use more eggs.

### FALL WORK AMONG BEES.

Colonies deficient in winter stores should be fed as soon as possible. Bees may be fed as late as November. Hives still having supers should have them removed. Colonies should be inspected early to see if they have a queen and numerous young bees. If either are lacking such a colony should be united with some other colony. Each hive should contain at least 30 pounds of honey. In many cases this is a hard thing to determine without going into the hives for an examination. By lifting a few hives, then examining them, a close guess can be made on the quantity of stores in the remainder. This should not be considered an inflexible rule, as two hives may be of the same weight and one have plenty while the other is in need of more winter stores. Combs of the one may contain a large amount of pollen and be extra heavy in bees, therefore requiring more honey or stores.

The most common method of furnishing stores is that of feeding sugar syrup. Some bee-keepers have extra frames filled with honey during the honey flow, and these are put into the needy hives by removing the light combs. This is a satisfactory method, but honey in these combs should be of good grade. No dark fall honey, or honey dew, should be given. Sugar syrup is even better than honey for winter stores. Nothing but the best granulated sugar should be used.

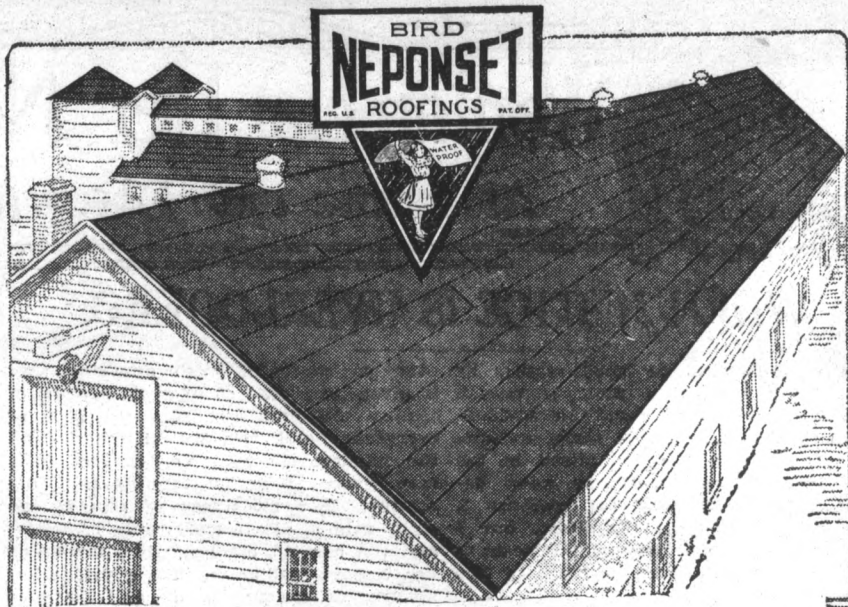
Home-made feeders will answer the purpose. These need be nothing more than pans put inside of an empty super which has been put on top of the hive. A large pan will enable the bee-keeper to feed a larger amount quickly. This is desirable, as the giving of a small amount daily until the deficiency in stores is made up, induces the bees to rear brood and excites them, thus wasting their energy. Chips, shavings or excelsior should be put in these pans to prevent bees drowning.

Sugar syrup should be made two and one-half parts of water to one part of sugar by measure. If feeding is done in November or in cold weather the mixture should be five pounds of sugar to one quart of water, and should be fed warm in the evening. The sooner feeding is done and the thinner the food the better it is, as bees are better able to chemically change it to their advantage. When syrup is fed in cold weather, or when thick, a teaspoonful of tartaric acid should be added to every 20 pounds of sugar which has previously been dissolved. Without the acid the thick syrup is liable to turn to sugar in the comb.

A larger weight of syrup should be fed than the deficiency of weight in the hive, as syrup shrinks 10 to 25 per cent in weight on account of bees removing the water before it is put into the combs. The difference depends upon how thick the syrup is when fed. Hives to be wintered out of doors should be packed during the early part of October and each entrance contracted to suit size of colony. Putting on an outer case which leaves a space of six inches around all sides of hive for packing material, is one of the most successful ways of wintering. The front of case must be arranged so that hive entrance is not closed to such an extent as to prevent ventilation or the flying of bees. The best materials for packing are ground cork or planer shavings. Chaff, fine straw, autumn leaves and sawdust are sometimes used. Even with good packing, it is desirable to have bees in a place sheltered from the wind and sufficiently covered to prevent water or dampness getting to the packing.

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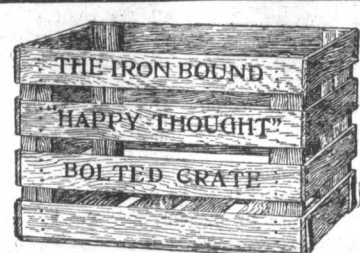
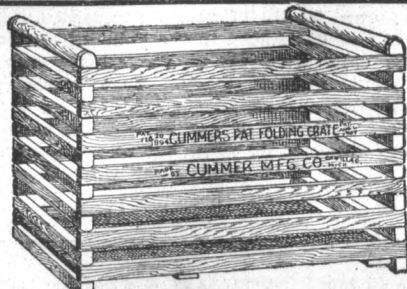
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# Woman and Her Needs

## At Home and Elsewhere

### WHEN JUSTICE IS OVERLOOKED.

ONCE shocked my good mother by savagely remarking that a woman who brought up a family of children ought to have a harp and crown no matter what crimes she committed in the meantime. Of course, I went away beyond perfect orthodoxy and perhaps a step beyond absolute liberalism, but I will leave it to any jury of my peers if the ideal mother isn't worthy of the laurel wreath?

There are so many things to be thought of in character building, aside from the purely manual tasks of feeding and washing and clothing and nursing. Just how shall I deal with this case of disobedience? How shall I uproot that vicious habit? How shall I implant that virtue? These questions are forever rearing their heads and bringing lines to the mother's face.

And the ideas of child rearing are as varied as are the mothers with children to bring up. There are mothers with theories, and mothers without them, mothers who delegate their powers to others and mothers who insist on being the chief ruler, mothers who make their work a burden to themselves and others and mothers who choose the easiest way.

But though the easiest way is often the best way in housework, as a rule, it is not the best in child training. Too often the easiest way is to give up when the child screams and kicks, with the result an undisciplined child who is cordially detested by everyone except his doting parents. We can all see that this is not the best way, but in other more subtle things we do not so readily discern that what is easiest at the time is the worst thing for the child and the whole family.

There is the question of simple justice in families. How much oftener we see it ignored than observed. One child is selfish and insists on all its own rights and the rights of some of the others. Another child is unselfish and willing to give up. And the parents, instead of repressing the selfish one and insisting on equal rights, lets him claim everything and the other go without because it is the easiest way.

One girl will not wear made over dresses, faded ribbons or patched shoes. The

other is contented with anything that is given her. And so to avoid a show of temper the first girl gets the best of everything and the second inherits all the hand-me-downs. Verily, here is a case where virtue is its own and only reward! For sweetness of temper one child gets a few scant words of praise and the cast-off clothes, while for losing her temper and acting like a virago her sister gets the new frocks and the good times.

The bad-tempered one doesn't like housework and shirks all she can; her sister is glad to do anything to avert a storm so she does the lion's share of work which should be equally divided. One brother won't stay home on a holiday to help with the chores, so the other has to leave all merrymakings early to go home and do the work, because he had just as soon. "He is kind of a dub anyway, and doesn't care for a good time," his gay brother would tell you.

Most of us do not need to look outside of our own homes to see just such conditions. We tolerate them because it is the easiest thing to do, never thinking that it is the worst way possible to raise our children. Not only is it an injustice to the unselfish child to let him always give up to the other, but it is developing the worst possible character in the selfish one. Carried farther to a time when the family may need monetary assistance from the children, it always results one way. The child who has always had his way simply will not give up any pleasures or luxuries to help the parents. If he can occasionally give them a dollar without giving up something he wants himself he will do it and then brag of his generosity for a year. It remains to the child who was slighted and put upon at home to take over the care of the old folks, too often at the cost of depriving his own family of actual necessities.

If you have been in the habit of letting one child give up to the other, young mother, stop it today. Turn about is fair play always, so see that neither imposes upon the other. It will not be an easy thing to do now, but 20 years from now your disciplined child will rise up and call you blessed.

DEBORAH.

### A Way To Help Solve the Rural School Problem.

By Edith Wilson McCormick.

If we are interested in where our money goes we ought to be interested in schools, for the school revenue was nearly a half billion this year.

If we are interested in our children we are interested in schools, for there they spend a large share of the formative period of their lives. Years ago when I was a young girl just out of high school, I heard a college professor say that, while high schools and colleges had progressed and improved, the country schools had not; they were still primitive. When I stopped to think that it was the graduates of these vaunted high schools and colleges who were teaching the country schools I wondered how both parts of his statement could be true.

Since that time I've been reading every item pertaining to schools that has come to my notice, about conduct and governing, methods, ideas of teaching, courses of study and manual training. And as I have had access to a considerable amount of current literature of different kinds I have read of many new and strange things along educational lines. Some seem good and practicable, some absurd and "faddy."

This I have seen recently, every live educator seems to be crying, "change." Therefore we may be very sure we will get—who can tell what?

Undoubtedly it will be possible before long to get truly wonderful things for our country schools. But if we want the best, quickly, we must wake up and go out half way to meet it and lead it in.

I read an editorial in a family maga-

zine where the writer told how many years she spent in school and how proud and confident she was when she received her blue ribboned diploma and went "forth to battle with life alone." She went on to say she soon found she was alone—alone and empty-handed, for she stored her formidable weapon of a diploma in the deepest depths of her trunk and spent as much time over again to unlearn what she learned at school.

Now wouldn't that take the wind out of your sails? Do you wish to spend the best 20 years of your life and all your cash educating Mary if she is going to feel like that when it's all over? I don't.

I am perfectly willing to "slave and save" to enable my children to learn Greek, Latin, or even Sanscrit, if I can be convinced it will make them healthier, happier, or more useful citizens. If, however, it is apt to give them the big head, empty of even enough common sense to make a noise rattling, faced with a pale, anemic visage set upon a pair of narrow stooped shoulders and underpinned by a pair of thin, lanky legs, I say they had better learn the "three R's" and learn them well, then come home and help me dig in the dirt. I'm sure we can dig out all sorts of wonderful things.

Healthy, wealth and books, books with all the treasures of the world between their covers. Here where we can work out in a practical way all the secrets they disclose. People don't need to be ignorant now-a-days even if they don't

learn everything there is to know while in school. But the point is they must, according to law, attend school from seven years of age to sixteen, unless they pass the eighth grade examination previous to that age. Years ago a boy of sixteen who was expected to earn his own living was apprenticed to a trade by that time. Now we keep them in school to "learn" them, turn them out at that age and many of them are practically helpless. They have to begin at the bottom and they get discontented, keep changing about and so learn no trade well. This is what causes discontent, careless and incompetent work and—yes—dissipation and evil.

If we can have, instead, trade schools I believe from what I have seen and read we can keep those big boys and girls who haven't "passed" and "hate" school, interested. Don't you believe a boy who couldn't be interested in percentage would be interested in figuring out which cow gave the most profit on her feed? What per cent of the seed corn would grow and how much larger a crop could be raised with good seed than poor? Especially if he were to receive a "per cent" of the profits thus gained?

I can teach my children to read and write and spell. It wouldn't take half the time it does to send them to school properly and do without their help. I want someone for teacher who can do better than I to teach them things I don't know, things that will help them to succeed where father and I have failed.

Why shouldn't they be taught practical scientific housekeeping and farming or a useful trade, according to the inclination and talents of each, as easy as to turn them all out of the same mold? The world will soon wear off the corners anyway and mar the perfect cast till they are as unlike as possible. Why wait for protuberances to be knocked off at random and the life scarred or spoiled in the process. Why not train and shape them aright in school?

That is what we will doubtless come to some time. Let us look up—lift up—talk up—and hasten the time.

### THE BLESSING OF HEALTH.

BY ELLA E. ROCKWOOD.

Good health is usually not appreciated as it should be. Its fortunate possessors treat it lightly and many times overtax beyond all reason what should be counted as a priceless treasure, worthy of every care.

What would not the invalid give to be well? Untold riches count as naught if with it go sickness and ill health. So long as one has health the ordinary sorrows of life can be cheerfully borne. Take that away and the world becomes an altogether different place. Life seems to be hardly worth the living.

The health which is the natural heritage of youth in an occasional instance endures to the end of a long life period. Those so blessed should be thankful, for they are enjoying something which many of their fellowmen are deprived of.

Men and women sometimes bring pain and suffering upon themselves. The human frame is wonderful in its resistance but there is a limit to its endurance. Women especially are subject to nervous and physical breakdown from goading themselves on and on until finally they give out entirely. Maternity and the cares of a household are more trying at the present time than the good Lord intended them to be. It calls for a strong frame to perform all the duties devolving upon the twentieth century woman.

The first duty which confronts her is to conserve her own health. To do this is not always possible but safeguarding it in every way within her power will go a long way toward it.

There is no doubt that our thoughts are helpful or harmful in this matter of health. To be cheerful and hopeful even in the face of discouragement is not always easy, but by a brave effort it can be done. A long face and a dolorous manner will never help to accomplish any good. A philosopher of old said, "A merry heart doeth good like a medicine," and it is even better than medicine in

### A FOOD CONVERT

Good Food the True Road to Health.

The pernicious habit some persons still have of relying on nauseous drugs to relieve stomach trouble, keeps up the patent medicine business and helps keep up the army of dyspeptics.

Indigestion—dyspepsia—is caused by what is put into the stomach in the way of improper food, the kind that so taxes the strength of the digestive organs they are actually crippled.

When this state is reached, to resort to tonics is like whipping a tired horse with a big load. Every additional effort he makes under the lash diminishes his power to move the load.

Try helping the stomach by leaving off heavy, greasy, indigestible food and take on Grape-Nuts—light, easily digested, full of strength for nerves and brain, in every grain of it. There's no waste of time nor energy when Grape-Nuts is the food.

"I am an enthusiastic user of Grape-Nuts and consider it an ideal food," writes a Maine man:

"I had nervous dyspepsia and was all run down and my food seemed to do me but little good. From reading an advertisement I tried Grape-Nuts food, and, after a few weeks' steady use of it, felt greatly improved.

"Am much stronger, not nervous now, and can do more work without feeling so tired, and am better every way.

"I relish Grape-Nuts best with cream and use four heaping teaspoonfuls as the cereal part of a meal. I am sure there are thousands of persons with stomach trouble who would be benefited by using Grape-Nuts. Name given by Postum Co., Battle Creek, Mich. Read the little book, '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.

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warding off imaginary ailments which, after all, are the kind which some of us are most afflicted with.

Let us not fret over trifles, nor think too frequently of our bad feelings. Let us keep busy but not over-tax ourselves unnecessarily and give as many hours to rest and healthful sleep as possible.

#### HUMAN WELFARE QUERIES.

Household Editor:—If your correspondent who can take milk only, for food, will employ koumis, practically wine of milk, she will get along nicely and experience a decided improvement in her condition. Put in a quart of new milk, a tablespoonful of sugar, granulated, and some yeast, set it away in a quite warm place until it ferments, at which time a chemical change is accomplished, resulting in wine. Ex-President Garfield's physicians gave him this, when he could keep no other form of nourishment. In case of necessity, every householder should know the value of this kind of food. For old folks who are feeble, and whose powers of digestion are not as good as they should be, try it, and see for yourselves how it will impart strength. —A. C. M., Bay County.

Household Editor:—As I saw a request for a carpet bug destroyer I will send you mine. I have tried it with good success. Take three corrosive sublimate antiseptic tablets and one ounce of sugar of lead; dissolve in one quart of water and spray the carpet where the bugs are troublesome. It will not discolor the carpet. —A Reader.

Here is a recipe for the extermination of carpet bugs and its efficiency has been vouched for by those who have tried it. One ounce of alum, one ounce chloride zinc, three ounces salt. Mix this with one quart of water and let it stand over night in a covered vessel. In the morning pour it carefully into another vessel so that all sediment may be left behind, dilute this with two quarts of water and apply by sprinkling the edges of the carpet for a distance of a foot from the wall. This is all that is necessary, they will leave boxes, bedding and any other resort that has been sprinkled with the solution, on the shortest possible notice and nothing will be injured in texture or color. —L. S., Stockbridge.

Household Editor:—I would like to do housework and my mother says I am not careful enough, I should do factory work and I don't care for that. Would you please give me your advice? I wish Deborah would take her subject from it and give me her advice also. —Miss Sixteen.

My advise would be to try to overcome your mother's objections by using more care and becoming a better housekeeper. Certainly housework is a vastly better occupation for girls, both from the point of view of health and the money one can save. Factory girls are crowded together in one room, with a half hour for lunch, which means, of course, a cold bite. The air is invariably bad, the hours long and the work irksome. The girl who earns \$8.00 a week is rare, the average being about \$5.00. Out of this the girl must pay for room, board, heat, washing, carfare, clothes, sickness, and every expense, so you can imagine how much one could save. The girl who does housework gets from \$3.00 a week to \$35 a month, depending upon her experience, and has her board, room, heat, and usually washing done. There is no carfare except on her days out, so you can see the difference in her financial condition and that of the factory girl. Just call these things to your mother's attention and perhaps she will change. I should not advise you to do anything against her wishes, but I believe she might be won over if you did your work better and she saw actual factory conditions.

Household Editor:—Please publish some new ways of preparing endive for table use, from early growth up. —A Subscriber.

Endive may be served as a salad with sliced radishes or diced pineapple and mayonnaise dressing. Or the well-washed head may be placed in the bowl, garnished with slices of hard-boiled egg and dressed with oil and vinegar. For the oil and vinegar dressing, blend thoroughly six tablespoonfuls of oil with three of vinegar and season with salt, pepper and paprika. Tarragon vinegar is good to use in dressings for endive salad.

Household Editor:—Would you please tell me what I can clean a light colored carpet, an ingrain, with without taking it up? —R. J. D.

Unless you have a vacuum cleaner it will be hard to get the dust out of your carpet. Such carpets are brightened by going over them with a strong solution of ammonia in water. Obstinate spots may be scrubbed with a suds made of white

soap and rinsed thoroughly in clear water.

#### Graham Bread.

We think this very nice. Half cup of molasses, fill the cup with sugar, two cups sweet milk, one rounding tablespoon of butter, one teaspoon of soda, one of salt, three cups of graham flour, one small teaspoon of baking powder. This makes two small loaves. —Mrs. T. S.

Household Editor:—I tried the butter-milk pie recipe and find it good; now I would like to find if some of your many readers could send in a potato pie recipe, where they use the raw grated potato for thickening. —Mrs. Hardup.

Household Editor:—Will you kindly print a reliable recipe for dill pickles? —Subscriber.

#### WHEN YOU DEAL WITH WOUNDS.

BY FRANK H. SWEET.

Three things that every housewife should always keep on hand in case of accidents are a spool of adhesive plaster, a package of carbolated absorbent cotton, and a bottle of boracic acid.

A weak solution of boracic acid is excellent as a healing lotion for slight cuts or wounds. Several thicknesses of cheese cloth or old soft linen saturated with this solution and placed over wounds is a fine antiseptic and cleanser, and is often all that is needed.

A fresh cut, or other wound, should be bathed thoroughly with a weak solution of boracic acid, and then well wrapped with soft cloths to prevent any dirt getting into it. If you have no boracic acid on hand, use very weak borax water. As soon as the bleeding stops draw the edges of the wound together and hold them in place with strips of sticking plaster, covering the whole with absorbent cotton before putting on the bandage. To remove plaster after a wound has healed, apply turpentine or alcohol.

#### FASHIONS BY MAY MANTON.

Our large Fashion Book for fall of 1912—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. 7518.—Chemise with Round, Square or Pointed Neck, 34 to 42 bust. With or without beading at waist line; 2½ yds. of material 36 in. wide, 2½ yds. of beading, 3½ yds. of edging as shown in large view is required for medium size.

No. 7529.—Girl's Sacque Night Gown, 10 to 16 years. With or without applied yoke, with elbow or long sleeves, with or without collar; 4 yds. 36 in. wide is required for 12-year size.

No. 7511.—Square Yoke Night Gown, 34 to 46 bust. With square or high neck, elbow, three-quarter or long sleeves; 5 yds. 36-in. material, 2 yds. of banding, 3 yds. of edging is required for medium size.

No. 7501.—Girl's Five-Gored Petticoat, 8 to 12 years. To be attached to underwaist or finished separately; 1½ yds. of material 36 in. wide, with 2½ yds. of embroidery 4 in. wide, 1½ yds. of insertion and 3½ yds. of edging is required for 10-year size.

No. 7520.—Child's Night Drawers, 2 to 8 years. With or without stocking feet, with round or standing collar, one piece full or two-piece plain sleeves; 3½ yds. 36-in. material is required for 6-year size.

The above patterns will be mailed to any address by the Fashion Department of the Michigan Farmer on receipt of ten cents for each.

Vegetables stored in the cellar for winter use will keep much better if wrapped in paper. —Mrs. J. D.

When ironing curtains run the rod, or a yard stick through the hem before it is dry, then iron it again. —E. L. R.



### Anty Drudge Meets an Old Schoolmate

Anty Drudge—"Well, well, well, when I had this chance to take a trip through the country in son-in-law John's auto, I just hoped I would run across some of my old friends. How are you, Miranda?"

Miranda—"Gracious, goodness me, Anty Drudge! I can say for you that you ain't a mite changed except to grow up. As for me, I'm clear tired out. Here it is come supper time, and my wash just done."

Anty Drudge—"Well, here's where I get out of this auto and spend the night. I'm going to talk to you about Fels-Naptha Soap, and if you don't thank me, you're the first woman that hasn't."

There are lots of things about farm life that make the city people envy the farmer and his wife. There are the fresh eggs, the crisp vegetables, the good milk and fine country air.

But there are things the city people don't see that make the farmer's wife wonder if life is all honey and roses,—the weekly wash, for instance. But if you use Fels-Naptha Soap half your wash is done for you. It does away with all hard rubbing, and the clothes don't have to be boiled. Use cool or lukewarm water

Grocers and general stores sell Fels-Naptha. Made in Philadelphia

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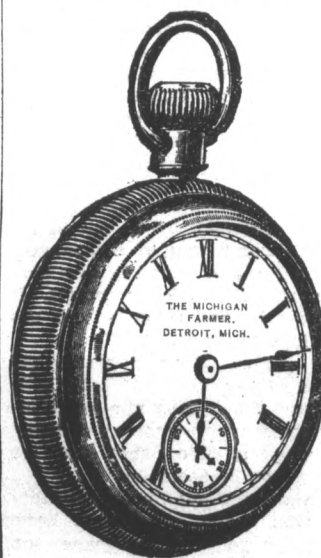
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## HOME AND YOUTH

### UNCLE JERRY AS WITNESS.

BY INEZ DE JARNATT COOPER.

Across the slough in the woods pasture the frogs' deep bass sounded the warning of night and along the hedges the birds were lowering their notes to a twitter. A slant of western sun sent a glow across the tawney shock of hair as Uncle Jerry, resting his booted foot on the lowest step of the kitchen door, waited for his wife, whom he had called.

"Mother," said he, as she appeared, "here's a preacher fellow wants to stay all night with us. I told him it laid with you."

Aunt Jane, black eyed, tidy and bustling, glanced down from the upper step. She was rosy from the open oven which sent out a whiff of deliciousness from hot biscuit to mingle with the ham sizzling on the stove. This rosiness made her especially engaging as she glanced the stranger over.

He had a cheerful, ruddy face and smooth manners. "I started to take one of these ten-mile English walks we read about," he began—I and fifty of my congregation are camping about five miles from here—"

"Benton's Grove?" interrupted Uncle Jerry.

"I don't just remember the farmer's name." The stranger hesitated but a moment. "Mighty nice man, though," he added, "and spoke well of you. Said you were a worker and all that—owned half a section, or was it a section?" he rattled on pleasantly, looking to Uncle Jerry for confirmation.

"Half a section," replied Uncle Jerry curtly.

The stranger, with a pleasant garrulity, addressed himself to Aunt Jane. "Mighty lot of difference between farmers," he continued. "Now your next neighbor utterly refused to take me in but sent me here. 'Jerry Timber,' he said, 'takes in all the tramps,'" and he chuckled at his joke.

With the approval of Aunt Jane he was admitted to the large living room. It was after chore time when the three were sitting chatting pleasantly, that there came a rap at the door.

Uncle Jerry opened and peered into the darkness.

"I understand," came a voice, "that there is a minister staying here."

Uncle Jerry held the door ajar to admit the caller, a sturdy countryman, followed by a young woman, when his guest arose to his feet.

"How did you know it?" he asked excitedly. "I trust no one is at the point of death and I unable to reach them by my foolish wandering from the place where I ought to be found!" Flustered and anxious, he reached for his hat.

The girl, under her cheap mushroom headgear, giggled, while the young man twitched, embarrassed.

"Fact is," he fidgeted, "we—er—well, we want to get married—and the old man's after us. Ednie has been keeping house for him six years and he's so mean to her that she's been afraid to marry, although she is twenty-three. We came over the line because we heard there was a church camp here and just at dark we passed a man who said that a preacher wanted to stop at his home all night and he sent him to Jerry Timber."

"Lucky he didn't let you go on to the camp," commented the minister, warmly. "I suppose you have no license. You're over the line, you know."

The young man grinned. "I looked out for that yesterday," he said. "We were to be married in New Lenox, only we heard of the camp and took the shorter way."

"Oh, you young people!" the pastor laughed indulgently.

"Stand here!" he commanded, changing from geniality to seriousness. "Clasp hands," and with a few short business-like sentences, long familiarity making a book unnecessary, he spoke the words, ending with, "I pronounce you man and wife!"

The groom shyly tendered him a bill and turned with his bride to leave.

"I'll declare," said the pastor, holding his fat sides with laughter, "you said you were both of legal age but you act like babes. What have you," he twinkled towards the bride with pleasant unctious, "to prove that you are married?" and he held aloof the license which had been laid upon the table.

"Gosh, that's so!" replied the groom

whereupon the man who had just married him handed him a fountain pen with which to sign his name. He signed and turned to the bride, who took the pen nervously, uncertain just what to do.

"Sign right there," said the pastor, folding it down to the signature lines for her convenience, "and be sure," he bantered, "and sign your new name and not your old one."

She signed. He took the paper from her and held it towards Uncle Jerry. "Now," he beamed, "if you and your good wife will just sign as witnesses—"

"For heaven's sake!" interrupted the girl, stricken with sudden panic. "I just believe those dogs are barking at Pa!" and she burst into tears.

The groom tried to quiet her while Uncle Jerry's guest handed the folded certificate to him, urging haste.

Uncle Jerry signed and the guest thrust it hurriedly towards Aunt Jane.

"Sign just as I did, Mother," commented Uncle Jerry, pointing to his signature, and she, taking the pen, did as she was told.

At daybreak the guest departed and it

### A PARSON UNEXPECTED.

BY WILLIAM A. FREEHOFF.

Deacon Brown's face plainly showed the intense amazement he felt.

"Just afore the parson died," he explained to the Hermit, who smiled quizzically at him, "he asked that no one but you be allowed to preach his funeral sermon, John Farrand."

"I was expecting it," replied the Hermit, quietly.

"You don't mean to tell me you're a parson!" ejaculated the Deacon, thunderstruck.

"Here are my papers to prove it."

And sure enough, he was able to establish conclusively that he was a regularly ordained minister.

The conversation then drifted to the aged pastor of the only church in Hope Valley, who had crossed the Deep River during the night with the tranquility of one who had no dread of the future. The Deacon had just ridden up to deliver his message.

"He was a good man," declared Deacon Brown. "No one could have done his duty more faithfully. It required a tremendous amount of self sacrifice for a man of his qualifications to bury himself in these hills, when he might have accomplished vastly more in a larger field."

"The great tasks are those which lie nearest at hand," acquiesced the Hermit, solemnly.

"I think we'll be lucky to get anybody at all into Hope Valley, to be his successor. We can't pay a princely salary."

But as at this juncture the Deacon's horse began to manifest marked signs of impatience, he rode slowly down the path.

"You can't always tell," shouted the Hermit after him, with an intonation of voice the Deacon did not note until afterwards.

The Hermit watched the rider disappear with evident admiration.

Deacon Brown, indeed, was the sort of man everybody could not help but like. Throughout Hope Valley no one was held in greater respect or commanded a more extensive influence. Although sixty years of toil among the stony hills had hammered his face into the appearance of a weather-beaten cliff, calloused and gnarled his hands, bent his shoulders and sprinkled the silver liberally in his black hair, the buoyancy of his spirits never declined. Even now he whistled a hymn tune as he galloped along, inspired by the merry chattering of the birds and the mellow sunshine radiating between the bluffs on either hand, and did not cease until close proximity to the house of grief brought him to a realization of the indecorum of his jollity.

The Deacon and the Hermit were on friendly terms, although by no means intimate. The Hermit was of a strangely reserved nature and shunned rather than sought friends. With the exception of the dead pastor, he had taken no one entirely into his confidence.

Ten years before, John Farrand had suddenly come into the peaceful little valley. He had taken up some unclaimed land, worthless for general farming purposes, erected a rude cabin, and led an inoffensive life of seclusion.

Nobody knew anything about the Hermit, as he was called. He must have been about forty years of age when he sought an asylum in Hope Valley, but he had all the external appearance of

was a week later that a business-like young man came to the farm home to collect a note of five thousand dollars, showing as proof what had served as a certificate of marriage, now a promissory note to be paid by the undersigned.

"That is your handwriting, isn't it," argued the young man, as Uncle Jerry, after reading it over, said he guessed he wouldn't pay.

"Yes," said Uncle Jerry, thrusting his hands easily into the pockets of his overalls. "It's our handwriting, all right, but it isn't our names. I signed my nickname. They call me Jerry Timber because, among several Jerrys about here, I own the most timber. My cousin is called Jerry the blacksmith and my uncle Jerry is Jerry Creamery. He owns a creamery."

"My real name," he concluded, "is Gerald Landon, although my grandfather and uncle spell it Jerrold. I've been called stuck-up for spelling it with a G. Well, I've used the J for once. I signed it J. Timber and I told my wife to sign it as I did. Jane," he added, "is a pretty smart woman."

being a much older man. There was something so indefinable about his entire bearing that one would have liked to question him about his past, yet never did. His eyes were kindly and gleamed from beneath bushy brows with the full vigor of an undimmed sight, but his long hair, already tinged with gray, and his slow, apathetic walk, belied this one youthful evidence.

No one thought seriously of disturbing him, while he certainly did not seek trouble of any sort. At first, of course, some of the more curious of Hope Valley, finding time hang heavily on their hands, kept a perfunctory sort of watch on the lonely cabin and its strange inmate, in the hope that they might perhaps surprise some mystery. At length, even this was abandoned.

While it was but second nature with Deacon Brown to take a neighborly interest in everybody in the valley, it is doubtful if he would have been so drawn to John Farrand had he not in some unaccountable manner felt from the very first that the man had some hidden power as well as some hidden sorrow. The Hermit was withal so intelligent, gave such evidence of being an educated and cultured person and conducted himself in a manner that aroused the Deacon's keenest curiosity.

When, after a year or two, the aged shepherd of the Hope Valley flock became a constant visitor at the cabin of the Hermit, who in turn regularly attended the Sabbath services, not only Deacon Brown but the majority of the parishioners felt that he was entirely the most inexplicable character they had ever known. The Deacon noticed, also, in his not infrequent calls upon the Hermit, that a large Bible occupied a shelf of honor near the fireplace, and that it was well thumbed.

This morning, as Deacon Brown rode swiftly down the valley, after his brief conversation with John Farrand, the Hermit was more of a mystery to him than ever before. That he was a minister had come as a complete surprise. But he rejoiced in the fact, nevertheless, even if he could not help but conjecture at the reason that had driven the Hermit to abandon his life-work and withdraw himself almost from the sight of man in their prosaic little section of the earth.

The aged pastor was followed to his grave by the largest crowd that had ever attended a funeral in Hope Valley. The church would have been packed to the limit under any circumstances, but the fact that the Hermit was to deliver the eulogy had spread with great rapidity and brought out those who would otherwise not have come.

As he gazed into the motley array of faces before him, the Hermit seemed somewhat agitated, the transition from cabin to pulpit being rather abrupt. His voice, too, showed the lack of practice, although it possessed a most pleasing quality. His audience watched his every movement closely.

Of all those who heard the Hermit speak that afternoon, there was not one but felt that he spoke from the depths of a profound personal experience. After his momentary awkwardness had passed away he seemed to forget everything in the absorption of his theme, the life story of a clergyman who had poured the full measure of his love into the rural community of Hope Valley, when his natural qualifications had been such that he might have posed among the leaders in the civic life of a populous city. Master-

### OLD IS THE TALE.

BY MARSHALL PANCOAST.

Old is the tale, of an old intent,  
Of the call of the city that farmward went;  
Of the youth who fancied he followed the stars,  
And left them behind at the pasture bars.

It is he who wearily turns today  
To an impulse caught from a blossom-spray,  
Far from the trees of the orchard lane  
Where the cat-bird trilled a Spring-glad strain.

Daily, perchance, from the dizzy heights  
He yearns for the peace of those perfect nights.  
Now what would he give that he might hold  
On his horizon those hills of old!

Home hills and golden, so remote,  
Where the swallows drift and dip and float.  
Ah! never wealth's magic gave a city's tower  
The dreams of the farmstead's twilight hour!

And many the man, when the day grows dim,  
Must reckon the cost of the call to him,  
The price he paid, in the end to know,  
That life is best where the daisies grow.

He would win back the dawn-clear sky,  
The breath of the wood—such a man am I!  
The plash of the brook in the meadow—  
ah! when  
Will the fields of our youth be ours again?

Old is the tale, of an old intent,  
The tale of the youth who cityward went—  
Of the youth who fancied he followed the stars,  
And left them behind at the pasture-bars.

ful was the Hermit's imagery and masterful his oratory; his hearers were spell-bound to an extent they had never been before.

Deacon Brown had listened with ever growing delight. The conventional platitudes, an endless reiteration of platitudes, always palled upon him; he was jealous of the fair fame of his former pastor and would have been heart broken had the Hermit failed to grasp the significance of his topic.

"What's the matter with his taking the parson's place?" he thought, and then his brief conversation with the Hermit, three mornings before, flashed into his mind.

Perhaps the Hermit entertained a similar ambition!

The Deacon was right, for the application of John Farrand was received at the meeting of the trustees on the following week. Someone timidly suggested that perhaps it might be better to issue a call and have the Hermit enter into competition with any candidate who would respond, but Deacon Brown would not hear of it.

"Candidates nothing!" he spluttered. "The Hermit can talk rings about anybody I ever heard." And when another hinted something about investigating the past of John Farrand, so as to be sure they knew what they were getting, he snorted with indignation.

He had his way and the Hermit was installed. The church was packed on the Sunday of his initial sermon. To the surprise of all, the Hermit did not say a word about his past; he delivered the conventional address, only bringing it down to modern application with telling force. It was a masterly effort, one which produced a profound effect upon his hearers. While he did not directly allude to his past his discourse was of such a nature as to leave little room for doubt that his life had been tempered in the crucible of spiritual suffering and trial.

Immediately after the benediction had been given, a tall, querulous looking stranger, who had occupied an inconspicuous place towards the right, arose and walked rapidly towards the pulpit, as if to speak to the eloquent minister.

Instead, he raised his right hand with a detaining gesture and, when all grew silent from very amazement at the unwonted proceeding, with his finger pointed accusingly at the now pale parson, the stranger addressed the wondering parishioners.

"This man is nothing more than a drunkard and a thief!"

A sudden stir among his auditors, as they craned their necks to observe the actions of the pastor as this challenge was flung at him, interrupted the speaker for a moment.

"I think it my duty to warn you," he continued, raspingly, "that you are harboring a viper in your midst. That fellow who used such high falutin' language



this morning is no more than a common jail bird."

With lips pale and tightly compressed, the Hermit gazed fixedly at his accuser, who refused to meet his eyes.

"Ten years ago," resumed the stranger, "he was minister at Thorpeville. Thorpeville's a little burg a couple o' hundred miles to the east. I was deacon of his church and the second year he got raving drunk and made away with some of the money we had collected to build a new church. He always was rather fast and it surprised no one to see him go to the bad in that 'er way."

At this juncture Deacon Brown forcibly interrupted him, his eyes sparkling with indignation.

"I don't know what your name is, or as to the truth of what you're spouting," he shouted, "but you've said enough. There will be a meeting of the trustees of this church one week from next Tuesday night, and if you have any charges to present, why then's the time to make 'em. Not another word now. If you can't stay in Hope Valley that long, write out what you have to say and give it to me."

The murmur of approval that followed cowed the stranger into silence. So, with one final glance of contempt at the set face of the minister, he strode towards the door and waited for Deacon Brown.

"I purposely gave you next Sunday in which to explain," the Deacon had hurriedly whispered to the Hermit. "You may be sure we'll not judge you on that feller's word," he added, as he passed out.

Although his dramatic appearance among them, and his still more dramatic assumption of the duties of minister, was the entire talk of Hope Valley, the denunciation from his own pulpit, following his very first sermon, only set the gossips to wagging their tongues more furiously than ever.

Hope Valley was divided in its sentiment towards the pastor. While the great majority were inclined to accept the view that everything would be cleared at the meeting of the trustees, there were those who shook their heads dolefully and affirmed that they had always mistrusted that there was something queer about the parson and his ways.

Deacon Brown did not know what to think. He had conceived an immense admiration for the Hermit; it was chiefly through his influence that the latter had been accepted so unconditionally by the congregation; to have his conception of the man come tumbling about his ears like a house of cards, was indeed a great shock. Gradually, however, after he had recovered from the effects of his first astonishment and dismay, he began to regard the matter in a more philosophical light. Ever the last to think evil of another, he remembered that during the Hermit's ten years' sojourn in Hope Valley he was never known to have touched a drop of liquor. If he ever had been a drunkard, he certainly was not now. The Deacon recalled other incidents, of the Hermit's friendship for the former pastor, various vague remarks he had let drop about the past, which he had appeared to view with dislike, and Deacon Brown came to the conclusion that whatever the Hermit's life had been, his present was devout, and that was all he cared to know.

With one accord, however, all agreed that the parson owed it to himself to make some explanation the following Sunday. If he was falsely accused, it ought to be an easy matter to set himself right; if the stranger's charges were true, then he ought to make a public apology.

Sunday was muddy and murky, but in spite of the unfavorable weather, the church was crowded for the third successive time.

The interesting stranger was not present, "business" having called him home. But he had left a carefully prepared copy of his accusation with Deacon Brown.

All eagerly scanned the parson's face. Although he was somewhat pale, his eyes met those of his congregation frankly and his demeanor aroused the confidence of his worst detractors.

After the preliminary reading and singing had been dispensed with, he commenced his sermon proper.

"Brethren," he began, his voice vibrating under the spell of his emotions, "I owe you an apology. I ought to have told you, before I accepted the duties as minister of this church in Hope Valley, that I had disgraced my manhood and my calling at a former charge. I did take money that did not belong to me, while under the influence of a disgraceful debauch."

The speaker fairly hurled his confes-

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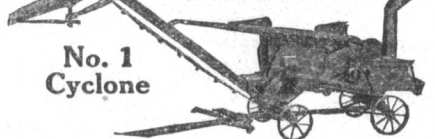
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sion at the audience, stopping until the first rustle of surprise at his declaration had subsided.

"I ought to have told you," he repeated, "but I hoped that in this secluded little valley nobody would discover me. I have been proven wrong.

"Now that I have been placed before you in my worst light, I ask your indulgence while I recite something about my life history, so that your judgment of me will not have been conceived in the dark.

"My father was a minister. He dedicated me to the calling when I was but a child and directed my entire education towards that end.

"I had many personal characteristics which unfitted me for the ministry. I was too much a man of the world. Social life had a peculiar charm for me, while I was ambitious to compete for the greater rewards of civil life. All this had, perforce, to be abandoned.

"Everything went fairly well for the first dozen years or so. I chafed rather severely under my restraint, but managed to perform my duties satisfactorily. In my college days I acquired a taste for liquor; I had never exceeded the bounds, but the craving for the debasing stuff was there. I never married, for I would not have been able to support a wife.

"When I took charge of my fifth flock, matters changed. It was in Thorpeville, a small village that could not afford to pay its pastor but the meagerest salary. I found it difficult to live within its bounds, especially as I had recently begun to spend rather more than formerly for liquor. One or two of the deacons expostulated mildly, Deacon Sluyter, the man who accused me last Sunday, being most abusive.

"Then the building of a new church added to my troubles. I, as minister, naturally had to assume the brunt of the burden. I was even detailed the task of taking charge of the finances of the undertaking."

"Deacon Sluyter was the only lumber dealer at Thorpeville and I accidentally detected him giving the trustees the short end of their transactions with him. He was enraged at that and labored persistently to obtain my removal. I don't believe he would have succeeded, in spite of my occasional use of drink, had I not lost control of myself and afforded him the very opportunity he wanted.

"It will not be necessary for me to go into details about the affair, how I, finding myself in a large city with much of the church's money in my pocket, became drunk for the first and only time in my life, and squandered every penny I then had in my possession.

"When the kindly police judge released me the next day, I was frantic. My only consolation was that my parents were not alive to learn of my disgrace. I went back to Thorpeville and, calling the deacons together, told everything.

"Deacon Sluyter was for having me criminally prosecuted, but the others desired to have the matter hushed up, to protect the good name of their church. As I was able, by selling practically all my personal property, to make good their financial loss, they promised to let the matter drop on condition that I resign and leave Thorpeville forever.

"It was a lesson for me. For a while I vowed that I would enter business, in some other part of the world, but that mood soon changed. In spite of my frivolity and ambition, I believe I had inherited some of my father's spirituality. After a two weeks' struggle with myself I decided that, as a punishment, I would

lead the life of a recluse for a short time or at least until I had gained complete spiritual mastery over myself and conquered the craving for strong drink.

"I heard of Hope Valley and the name pleased me. It was so very much like a good omen.

"My life here you know as well as I do. More than once I was tempted to throw myself into the mad whirl of life in the city, but gradually I became reconciled to my lonely existence. Of the greatest help to me during this trying period was the worthy pastor who has but recently departed from among us. Had it not been for him it is doubtful whether I would have won the battle.

"I was ready to re-enter the ministry several years ago, but I noticed that the reverend man's days were numbered and he had often expressed the wish that I should be his successor. So I waited.

"The reason I never told you of my past was that I thought I could do better work among you by being silent. The knowledge that I fell once could not but have an unconscious effect upon some of you.

"I am sorry that this should have occurred. If you feel that, in the light of my statements and Deacon Sluyter's accusation, I ought to leave Hope Valley, I am ready to resign."

Here he paused for breath. Deacon Brown was on his feet in an instant.

"Of course we've only got the parson's words for what he says," he thundered, "but his face looks good to me. I guess he'll hold his job all right. Are you with me," he queried, turning to the congregation, "if I call off that meeting for next Tuesday night?"

Nobody noticed at the time that it was rather unusual for a deacon to interrupt the minister in the middle of his sermon, for the hearty "ayes" that greeted the question were abundant proof of the regard in which the Hermit was now held by the inhabitants of Hope Valley.

### MY PURCHASE.

BY CORA A. MATSON DOLSON.

A long-neglected, weedgrown farm, with brush for fire to keep me warm, "A worthless place," the neighbors say, And wonder how I dared to pay Good hard-earned money from my purse For such a farm. One might do worse, I think, as I my acres roam, Rejoicing that I have a home.

A home! This plot of vines and weeds Was once a garden. Here the seeds My hand will drop in hill and row, And sun and toil will cause them grow. My hands will raise and trim these vines, Will pluck the grapes and press the wines.

The orchard—who could guess or tell How many a bushel I may sell Of apple, plum, of peach, and pear, That yet I shall see ripened there. This field I'll fence as pastured land For my two Jerseys; I have planned Two cows, a horse, and fifty hens, And three fat Berkshires in their pens. Though, to be sure, I must allow My pocketbook is empty now; And not a wagon, colt, nor mail Have I, not even a water-pail From which myself or colt might drink; But yet this farm is mine. Just think Of every possibility This farm and future hold for me!

A house, a well, a stretch of land Whose promise is at my command, A home from which to bar the storm, And brush for fire to keep me warm!

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THE EVENT THE ANNUAL STATE FAIR OF MICHIGAN to be held this year the week of September 16.

A FAIR WITHOUT A PARALLEL and the Fair of a thousand wonders, combining more real strong drawing attractions than any other Fair.

NEW FEATURES ABOUND ON EVERY SIDE and the agricultural and industrial exhibits have been made more interesting than ever without abating an iota from the interest in other events of the great Fair.

THERE WILL BE THE GRAND CIRCUIT HORSE RACES with all the fastest horses in the world in a record breaking carnival of speed and with the keenest sort of competition.

AND THE AUTOMOBILE RACES take on interest this year owing to the entries of Louis Disbrow, the marvelous driver of the 200 H. P. Jay Eye See, the record breaking juggernaut with which Disbrow comes to the State Fair to lower all mile horse track records; and also the presence of many other great record breaking drivers in a long list of races open to the entire automobile racing fraternity.

IN THE WAY OF AIR SHIPS the State Fair will not be short in spite of the many late fatalities, for Lieut. Mestache, who first flew from Paris to Madrid and from Paris to Rome, using a Bleriot monoplane, will fly at the Fair. This great flier has won International repute and is the strongest attraction today among the air men.

AND ALL OF THE FINEST HORSES SHOWN at events of this sort will be at the Night Horse Show, which has always been a leading feature of the Michigan State Fair and will eclipse this year any previous show, both in size and importance.

OF COURSE THE STATE FAIR HAS MANY OTHER INTERESTING FEATURES and is in every way a Fair worth while visiting owing to the many remarkable innovations introduced this year.

AMONG THE MANY STARTLINGLY NEW FEATURES are the Boys' State Fair School, with 150 boys in camp and going to school in reality to learn scientific farming; and then—there is the Miniature Model Farms that will be worth seeing; as city boys have been working on these farms for months to bring forth a prize crop and win the automobile and other prizes offered.

IN THE FIELD OF DAIRYING there is the new dairy barn of last year and the dairy building of this year, showing throughout the most modern dairy methods, a demonstration of modern devices to increase dairying and to bring this down to a scientific basis.

THE MODEL POULTRY FARM is interesting and the good roads building, the automobile show with many of the 1913 models on exhibition and other exhibits typical of Michigan, will serve to interest you.

WHAT OF THE MIDWAY YOU SAY—well there is a Midway and it will be a dandy this year, cleansed of all pit shows and fake shows and refined, but interesting in every way.

BUT IT CAN'T ALL BE TOLD HERE. Space is limited. The 53rd Annual State Fair of Michigan will not be a side show to the horse races and other contests, but a typical agricultural exhibit with all sorts of industrial features added, including:

AN INDUSTRIAL BUILDING in which manufacturing progress will be shown in each exhibit, every exhibit working overtime to create the goods shown.



## SPECIAL ARTICLES ON MILK.

(Continued from page 214).

duce a milk capable of certification he is at once confronted with the fact that certain changes of a more or less general nature are imperative, which involves the expenditure of sometimes a considerable amount of money.

## Physicians Have a Responsibility in the Matter.

The public have an important responsibility in this matter and physicians, especially, who generally are promoting the production of certified milk must take a share of this responsibility upon themselves. In the city of Lansing we have suggested a way previously which we feel will secure a local supply of certified milk to the city without delay. In a city of no greater population than Lansing we felt that the dairyman producing certified milk should in some manner be protected so that he would have at least a definite sale of the product which cost him considerably more to produce than does the ordinary market milk. It occurred to us, and we suggested, that if the local physicians interested in the supplying of the certified milk would make a canvass of the city, they would be able to secure a certain number of customers who would agree, and contract if necessary, to take a certain amount of certified milk daily throughout the year, at a definite stated price, say 12 or 14 cents per quart. With comparatively little effort there would be at once established a market for a limited amount of certified milk and once a market is found and assured we apprehend there will be absolutely no difficulty in securing a thoroughly competent dairyman to undertake the supplying of certified milk. We feel that this is the physician's and consumer's duty in the production of certified milk and undoubtedly, unless some philanthropic person is intensely interested in it, it will be necessary to adopt some such an expedient before a dairyman will consent to take the risk involved in the production of certified milk in a small city.

## The Dairyman Should Not be the Only One to Take the Risk.

No one in the state, we apprehend, has taken a more advanced position with regard to the improvement of the city milk supply than has the writer. Our inspections have been severe and our specifications rigid. But still we fully appreciate the fact that the most effectual means of securing an improved food supply and a high-grade milk supply is accomplished through the putting into actual practice of effective co-operation. A dairyman is slow to concede that his should be the sole risk in the production of a food product which practically every family in the city is interested in. And where he observes also that the principal interest of the residents of a city seems to be in keeping the price at its lowest possible margin it is little wonder that before he takes such a step as the production of certified milk involves, he is naturally going to ask the question, "will there be a market for my milk when once it is produced?" and he needs some answer other than the mere assertion of officials and physicians that he is sure of a market any time he can produce the milk. He knows from experience that the public generally are as yet not sufficiently educated to the superiority of clean milk so that they are willing generally to overlook the few cents increase in cost that the production of clean milk necessitates. Many a family will continue the use of unclean milk when it can be purchased for five or six cents a quart when they may be assured that by paying two cents more a milk comparatively pure in respect to cleanliness may be secured, and this condition is by no means confined to the poorer and less educated centers of our cities. In some sections, quite the reverse of this condition, the dairyman knows that the question of cost per quart is the all-ruling factor in the milk supply. In a large city, as we have stated before, this point may be ignored because there are a sufficient number who desire the high-grade milk to make its production a commercial success. In a small city it is more difficult to find such a market, but we think by the method we have outlined here and previously the problem can be very neatly and quickly solved insofar as a city the size of Lansing is concerned.

## Clean Milk is Commercially Practical.

The production of certified milk has given tremendous impetus to the improvement of milk and its products generally. It has been demonstrated to the people that clean, safe milk is a commercial possibility and in this way has

done much to remove from the minds of people and producers generally stagnant notions that modern scientific, sanitary measures are impractical and impossible of commercial exploitation.

## Compared with Other Foods, Milk is Not Expensive.

When our people will stop to consider likewise that milk retailing at from 12 to 14 cents per quart is no more expensive than sirloin steak at 18 or 20 cents a pound, and get this idea fully impressed, there will be less objection to the purchasing of a high-grade clean milk, either certified or capable of certification, and the dairyman will have his ample recompense in a market for a product which he has taken extra precaution with and gone to added expense to produce.

## GRANGE

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

## THE SEPTEMBER PROGRAMS.

## Suggestions for Second Meeting.

Instrumental music.  
"Co-operation in this and other countries," a paper.  
Reading, "University Students and Women."  
Popular music of today compared with that of 30 years ago, a paper or talk with examples.

New ideas gained at the fairs: 1. Through a man's eyes. 2. Through a woman's eyes.

What men most desire on a farm, by a woman, discussed by a man.

What women most desire on a farm, by a man, discussed by a woman.

Refreshments, "My husband's favorite dish," furnished by the wives.

## THE GRANGE LECTURER AND THE YOUNGER MEMBERS.

The successful lecturer gives closest attention to the hard problem of gaining and holding the interest of the younger patrons, since the future of the organization depends almost wholly upon them. A Pennsylvania lecturer, who has evidently given the matter much thought, recently said:

The relationship of the lecturer's hour to the young people is certainly a most important one and might almost be compared with the importance of the mother to the young people in the home. Only enough boys and girls to prove the exception to the rule, join the Grange with any other purpose than for the enjoyment they will get out of it.

With the lecturer largely lies the opportunity to furnish this enjoyment and at the same time knowledge which will hold these young people and make them the earnest workers of the future. Perhaps the hardest part of the work lies in adapting it to all "sorts and conditions of men," as we find in the Grange, for those who enjoy the gravest subjects must not always give way to the lighter work. This is where the serious consideration of each one's needs and a whole lot of tact stand one in good stead.

A knowledge of the characters and tastes of the members helps very much to adapt the work so that all may find something of interest. The social hour after the meetings, entertainments and practicing for entertainments all afford excellent opportunities for the lecturer to get acquainted, and thus gain ideas for the work. It seems to me that we too often pick out the work we wish done and then try to fit the people to it rather than to fit the work to the people.

The social life of a Grange is much more helpful with the influence of an interested lecturer. Entertainments, whether for pleasure or money, make Grange life attractive to the young. Here again the lecturer who has studied her members can generally do better and more harmonious work than a committee appointed for the occasion. To my mind in no other way can a lecturer lessen her influence more or make her helpers less willing to aid her than by complaining to or about those who do not do as they should.

The idea has suggested itself to me whether a little class work could not be introduced into a lecturer's program and be both helpful and a novelty. Say it is cooking for the sisters; there are so many good books on this subject, one of which might be selected with a different person for each meeting appointed to lead the work and carry out details. In many halls where there are kitchens the actual work could be done, each person furnishing part of the materials used. A course of three or four lessons once a month

would perhaps be enough for one year's work and not enough to be tiresome.

There is a variety of subjects which would be of use to the brothers, and with a book as a starter they could be worked out in much the same way. Certainly interesting and holding the young people in the Grange is the most important part of a lecturer's work, for the older people generally have enough regard for the order to stick to it, and again those who become thoroughly interested in youth never forget it.

Lovers of psychology would give us a knowledge of this subject and give us just the touch required to do the best work as a lecturer, but after all psychology seems to me to be what might be called common sense, and a physician was heard to tell a nurse in regard to taking a patient out of doors, "wrap her up well, but not enough to start perspiration, be careful of the damp air—well, just use good common sense about it." Thus if a lecturer uses good common sense and has a love for the order and humanity, I believe the work may be a pleasure and an opportunity to do the greatest good to the greatest number.

Hope Grange Rally and Picnic.—Hope Grange, Midland county, held its seventh annual rally and picnic Aug. 22, in Sheridan's grove. This is a beautiful, well kept piece of woods lying on the rear of Thomas Sheridan's farm and an ideal spot for such gatherings. Mr. Sheridan, by the way, is the hustling master of Hope Grange and on the aforesaid date was one of the busiest men in Midland county. By noon fully 500 patrons and their friends were in attendance, neighboring Granges joining in making this a day of pleasure for all. A basket picnic dinner was served, after which Bro. Jackson, who is well known to members of the Grange in this state, took charge of the program, and an orderly and interested audience listened to addresses, readings and recitations, with plenty of vocal and instrumental music, followed by athletic sports including two games of baseball. Many prominent people from a distance attended this meeting, a large number of automobiles being in evidence. —E. J. C.

## COMING EVENTS.

Pomona Meetings.  
Ingham County Pomona, with Holt Grange, Saturday, Sept. 14.  
Lenawee Co., with Working Grange, Thursday, Oct. 3.

## FARMERS' CLUBS

## Associational Motto.—

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

## Associational Sentiment.—

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

## CLUB HISTORIES.

## The Ray Farmers' Club.

Fourteen years ago, in 1898, a few farmers, thinking to better the social, educational, and moral condition of their community, banded themselves together and organized what is known as the Ray Farmers Club, of Ray township, Macomb county, Michigan.

How far-reaching their efforts have been is shown by the fact that it is now ranked as one of the strongest in the state, and had the distinction one year of being one of two Clubs who answered "Yes" to all of the questions sent out by the secretary of the State Association of Farmers' Clubs.

We usually start our year by holding an oyster dinner, with good program following, which draws a good crowd and starts the year right. This is followed by meetings each month, with the exception of July, with special programs arranged to suit the seasons. This year we had a very interesting one-day farmers' institute in February. In April we serve maple sugar. Then comes May as "Ladies' Day" with only ladies on the program. June is given up to the children. October is temperance day, November is Thanksgiving day, and December our annual meeting and election of officers, with the report of our state delegates as part of the program.

## The Annual Picnic.

I skipped August, but we do not skip it as a Club, for then the great event of the year takes place, viz., our annual picnic, which is known for miles around, and was inaugurated soon after the formation of the Club, and has been annually attended by from 200 to 800 people.

One remarkable thing about our picnic is, that there never has been a single

picnic spoiled by rain, or otherwise, and thus we feel that kind Providence smiles upon us and the good work we are trying to perform.

At these picnics a good program is generally arranged to follow the picnic dinner, and after the program a good ball game is played between a team picked from the young men of our Club and another from one of the nearby villages. Last year we had as a special attraction an address by Prof. S. B. Laird, of Ypsilanti, and everyone knows that when he speaks, those who listen will hear something worth while. This year our picnic was held August 29, in the grove belonging to Mrs. S. Maria Smith, and on the farm occupied by Mr. Walter Green who each year at picnic time proves himself a very genial and royal host.

We expected a prominent speaker to give us an address but for some reason he failed to appear and thus our program was quite badly broken up, but a few songs by the Club, a vocal solo by Miss Verna Downs, a reading by Lewis Broughton, and a short address by Mrs. O. J. Smith, of Romeo, made up a short but enjoyable program, after which the people spent the rest of the afternoon watching the ball game or patronizing the stand conducted by the Ladies' Aid Society of our local Union Church, who dispensed ice cream and other nicknacks. This stand is one of the features of the picnic and helps to swell the treasury of the ladies by sums ranging from twenty to forty dollars.

The ball game this year was between Armada and the Ray Grange team and, though many of the players had had but little practice a very creditable game was played, resulting in a victory for Armada by the score of 8 to 7.

After all was over the people wended their way homeward with smiling faces, feeling that they had spent another very profitable and enjoyable day and with great expectations of attending the picnic to be held in August, 1913.—J. A. Priest, Cor. Sec.

## CLUB DISCUSSIONS.

Gentlemen's Day.—The North Marshall Farmers' Club held an excellent meeting on their regular day, the third Wednesday in each month, in August, at the home of Mr. and Mrs. Gilbert White and family. There was a good attendance, 51 answering present at roll call, while as many more were visitors. An event not tried before in the history of our Club was that this was Gentlemen's Day—when eight of our prominent members emptied baskets and served the entire dinner, while the ladies enjoyed a social hour. The gents did their part very capably and enthusiastically and looked fine with big aprons on. The program was partly a "Michigan" program. Two Michigan songs given and two papers, one on the "Great Lakes," and the other "Detroit." Both were historical papers and at the close of the latter the gentleman had recently visited Detroit and gave a description of the "Cadillaca." The farm topics consisted of a paper on "Silos," and a talk on ensilage. At our September meeting the Club expects a lady, Miss Estelle Downing, of Ann Arbor, to speak on woman suffrage.—Nettie J. Thomas, Sec.

Discuss County Roads.—The August meeting of the South Venice Farmers' Club was held at the pleasant home of Mr. and Mrs. M. M. Byington. Meeting was called to order by President M. Shipman. Song from Rural Songster No. 60. Devotional exercises were conducted by Mr. L. T. Stewart and the Club all joined in repeating the Lord's Prayer. Associational topic, "County Road System," was taken up by Mr. Emple and a very good discussion followed by Messrs. Bingham, Cook, Chandler, Whelan and other members of the Club. Roll call found all families represented with the exception of one. Mr. and Mrs. Miller were admitted as members of the Club. After reading the program for the next meeting we adjourned for an excellent supper served by our host and hostess and to meet the fourth Thursday of September with Mr. and Mrs. John Toby.—Cor. Sec.

The Conway and Handy Farmers' Club was pleasantly entertained at the home of Mr. and Mrs. O. E. Carr, August 30. The afternoon was not one of the most pleasant, yet the house was well filled with members and invited guests. The first topic, "What great benefit are the fairs, stock shows, etc., to the average farmer?" was presented by H. C. Benjamin, who said they benefited the farmers in many ways; our own home fair is a benefit, it is a homecoming and one meets many acquaintances he does not meet any other time, sees up-to-date machinery and good stock. Some men go to these shows to buy. Gas machines are demonstrated and every farmer will see the need of one for his personal use sooner or later, they seem to be a necessity. Clay Gordon led the discussion and he thought the farmer was benefited socially as well as financially. These shows cause enthusiasm among the stock men, etc. J. Snyder would not miss the state fair; we see farm tools there which we do not see in our home stores. J. B. Fuller thought it does us good and cheers us up after working hard.



# MARKETS

## DETROIT WHOLESALE MARKETS.

September 11, 1912.

### Grains and Seeds.

**Wheat.**—The bears were in power in the wheat deal the greater part of last week. There was unusually heavy selling by farmers over a large portion of the winter wheat section, the supply in sight increasing over 3,000,000 bu. The weather, too, has been favorable for the finishing of the spring wheat in the northwestern states and Canada. This condition assures a large spring wheat crop. The government report estimates a production of 300,000,000 bu. this year, which is 100,000,000 bu. greater than either 1911 or 1910. In spite of these bearish conditions, the market on Tuesday of this week had an unexpected reaction, prices advancing 1c. This was due to a bullish condition in Europe where all markets showed a sharp advance. At the close on that day the tone remained firm. The price on this market one year ago was 90¢ per No. 2 red wheat. Quotations are as follows:

	No. 2	No. 1	Red.	White.	Dec.	July.
Thursday	1.06 1/2	1.05 1/2	1.09 1/2	1.13 1/4		
Friday	1.06	1.05	1.09	1.12 3/4		
Saturday	1.06	1.05	1.09	1.12 3/4		
Monday	1.06	1.05	1.09	1.12 3/4		
Tuesday	1.07	1.06	1.10	1.13 3/4		
Wednesday	1.07	1.06	1.10	1.13 3/4		

**Corn.**—This cereal holds about steady. The government estimates of the growing crop exceed the record of 1906 by 68,000,000 bu. and last year's crop by nearly a half billion bu. Should the weather of the past week continue well through September a very large portion of the corn fields in the northern districts of the corn belt will mature ears. Should the contrary be true much corn will be unmarketable. Thus, the trade will depend largely upon weather conditions for the next few weeks. The price for No. 3 corn was 67c on this market one year ago. The visible supply shows a decrease of one-third of a million bushels. Quotations are as follows:

	No. 3	No. 2	Yellow.
Thursday	81	83 1/2	
Friday	81	83 1/2	
Saturday	81	83 1/2	
Monday	81	83 1/2	
Tuesday	81	83 1/2	
Wednesday	81	83 1/2	

**Oats.**—The offering of oats in liberal quantities has depressed prices. The visible supply increased nearly one and one-half million bushels, but this does not indicate the quantity of the offerings because a large portion has been consumed by current demand. The government estimates a total production of 1,290,000,000 bu., which is greater than either the crop of 1911 or 1910. The state report places the average yield for Michigan at 32 bu. per acre. One year ago the price was 45¢ per bu. for standard oats. Quotations are as follows:

	Standard.	Oct.
Thursday	36	35 1/2
Friday	36	35 1/2
Saturday	36	35 1/2
Monday	36	35 1/2
Tuesday	36	35 1/2
Wednesday	36	35 1/2

**Beans.**—The tone of this trade is dull practically no dealing being done. The nominal quotations are the same as a week ago. The Michigan crop report estimates the yield of beans at 78 per cent, which is the same estimate made a year ago. Private reports from many quarters indicate that the crop has been damaged to a considerable extent. Nominal quotations are as follows:

	Cash	Oct.
Thursday	2.70	2.30
Friday	2.70	2.30
Saturday	2.70	2.30
Monday	2.70	2.30
Tuesday	2.70	2.30
Wednesday	2.70	2.30

**Clover Seed.**—There was a slight improvement in the outlook for clover seed the past week. The hot, clear weather favored filling. The state crop report estimated the condition of the seed at 79 in the state, as compared with 64, the estimate of 1911. Quotations show a decline. They are as follows:

	Oct.	Alsike.
Thursday	11.40	12.00
Friday	11.40	12.00
Saturday	11.25	12.00
Monday	10.75	11.75
Tuesday	10.50	11.50
Wednesday	10.75	11.50

**Rye.**—The estimated average yield of rye in Michigan is 13 bu. per acre. The market is inactive and the quotations remain at 71c per bu. for No. 2.

**Timothy Seed.**—Continued receipts of timothy seed are pushing prices down so that now the ruling quotation here is only \$2.10 per bu., 25c below the price quoted one week ago.

### Dairy and Poultry Products.

**Butter.**—In spite of the good pastures through July, August, and so far into September, the butter situation is firm and higher. This condition prevails practically all over the country. Fancy creameries are quoted on the local market at 29c; first creameries, 27c; dairy, 21c; packing stock 19c per lb. The advance in creameries is about 3c, while dairy and packing stock are steady.

**Eggs.**—Eggs are firmer. The output is growing smaller and the recent hot weather has increased the percentage of the lower grades. This has encouraged higher prices in all the leading cities. Current receipts, candled, cases included, are quoted at 24c on the local market, an advance of 1c over last week's price.

**Poultry.**—Although eastern markets show sharp advances in poultry, due to the demand from Hebrew societies for

their celebrations, the local trade shows little change, all prices ruling about steady, except hens are about 1c lower and geese 2c lower. Following are the quotations: Broilers, 16¢@17c per lb; hens, 13¢@13 1/2c; No. 2 hens, 9¢@10c; old roosters, 9¢@10c; turkeys, 15¢@16c; geese, 8¢@9c; ducks, 14c; young ducks, 15¢@16c per lb.

**Veal.**—All grades steady. Fancy, 13 1/2¢@14c per lb; choice, 9¢@10c.

**Cheese.**—Market lower. In wholesale lots, Michigan flats, 14 1/2¢@15c; York state flats, 16 1/4¢@16 1/2c; limburger, 14¢@15c; domestic Swiss, 17 1/2¢@18 1/2c; brick cream, 14 1/2¢@14 3/4c.

### Fruits and Vegetables.

**Peaches.**—Offered more freely at reduced prices. Fancy Elbertas, \$1.75; AA, \$1.60; A, \$1.40; B, \$1.25 per bushel.

**Pears.**—Bartlett's are quoted at \$5@5.50 per bbl.

**Plums.**—Lower. Per bu., \$1.25@1.60.

**Huckleberries.**—Selling at \$3@3.25 per bushel.

**Apples.**—New apples are quoted at \$2.25@3 for fancy, and \$1.25@2 for common; pcor, \$1@1.25 per bbl. Good apples by the bushel are selling at 50¢@75c.

**Grapes.**—More's Early, per 8-lb. basket, 15c; Champion, 14c; Worden, 16c.

**Honey.**—Choice to fancy comb, 15¢@16c per lb; amber, 12¢@13c.

**Tomatoes.**—Per bushel, 60¢@65c.

**Onions.**—Per bu., \$1.

**Flour, Feed, Potatoes, Etc.**

**Flour.**—Market is active with price ruling lower for all but rye flour.

**Straight** ..... \$5.20

**Patent Michigan** ..... 5.80

**Clear** ..... 4.50

**Rye** ..... 5.00

**Feed.**—Coarse middlings are higher; all other grades steady. Carlot prices on track are: Bran, \$28 per ton; coarse middlings, \$28; fine middlings, \$31; cracked corn and coarse corn meal, \$34; corn and oat chop, \$31 per ton.

**Hay and Straw.**—Best timothy steady. No. 2 and clover lower. Quotations are: No. 1 timothy, \$17@18; No. 2 timothy, \$15.50@16; clover, mixed, \$14.50@16; rye straw, \$9@10; wheat and oat straw, \$8.50@9 per ton.

**Potatoes.**—Tone is more bearish. The weather of the past week has favored the new crop, and prices rule lower. However, there are some reports of damage from blight. They are going slowly at 50¢@55c per bu. The ruling price for southern offerings is \$2.25 per sack.

**Provisions.**—Family pork, \$22@23; mess pork, \$20; clear, backs, \$21@24; hams, 15¢@16 1/2c; briskets, 12 1/2¢@13 1/2c; shoulders, 13c; picnic hams, 12 1/2c; bacon, 16 1/2¢@18c; pure lard in tierces, 12 1/2c; kettle rendered lard, 13 1/2c per lb.

### OTHER MARKETS.

#### Grand Rapids.

Dairy butter advanced 2c this week and eggs are 1c higher. Fruit sold on Tuesday on the city market as follows: Apples, 50¢@75c; grapes, \$1.75 doz; fancy homegrown peaches, \$4; pears, \$1; Bartlett pears, \$1.50; plums, \$1.50. Potatoes and tomatoes made up a large part of the offerings on the vegetable side, both selling at 40¢@50c. Other prices were as follows: Beans, 50c; beans, 60¢@70c; carrots, 50c; cucumbers, 45c; corn, 10¢@12c; white cabbage, 25c; red cabbage, 45c; cauliflower, 75c doz; celery, 12 1/2¢@15c; egg plant, \$1@1.25; kale, 25c; watermelon \$1.40; muskmelon, 75¢@\$1; pumpkin, 50c. Wheat is worth \$1.03; oats, 33c; corn, 88c. The new crop of beans will begin to appear soon.

#### Chicago.

**Wheat.**—No. 2 red, \$1.04@1.05 1/2; Dec., 90 1/2c; May, 95 1/4c.

**Corn.**—No. 3, 76¢@77 1/2c; Dec., 54 1/2c; May, 52 3/4c.

**Oats.**—No. 2 white, 34 1/4¢@35c; Dec., 32 3/4c; May, 34 1/4c.

**Butter.**—Under moderate receipts and active trading the various grades of both creamery and dairy butter have made a general advance, the gain being 1¢@2c for creamery and 1¢@1 1/2c for dairy. Quotations: Creameries, 24¢@28c; dairies, 22¢@24 1/2c.

**Eggs.**—Good eggs are in light supply and firmly held. The better grades show a 1c gain over last week. Quotations: Firsts, 21c; ordinary firsts, 19c; at mark, cases included, 17 1/2¢@18 1/2c per dozen.

**Potatoes.**—Offerings moving moderately well at a decline of 5c from last week's figures. Michigan stock quoted at 45¢@50c; Minnesota, 45¢@50c; Wisconsin, 40¢@50c.

**Beans.**—The probable effect of recent wet weather upon this crop was reflected in a general advance, and the market is firmer. Pea beans, choice, hand-picked, \$2.97@3 per bu; prime, \$2.85; red kidneys, \$2.65@2.75.

**Hay and Straw.**—No change except on rye straw which is lower. New timothy hay selling about \$4 per ton lower than old. Quotations: Timothy, choice, \$21@22; No. 1, \$19@20; No. 2 and No. 1 mixed, \$16@18; clover, \$7@10; No. 2 and no grade, \$5@7; alfalfa, choice, \$18@18.50; No. 1, \$17@17.50; No. 2, 14¢@15. Straw—Rye, \$8@8.50; wheat, \$6.50@7; oat, \$7@7.50.

#### New York.

**Butter.**—Market firm at an advance of 1c on the better grades of creamery butter. Quotations: Creamery, special extras, 28¢@29c; do., firsts, 27¢@28c; do., seconds, 25 1/2¢@26 1/2c; factory do., June make, firsts, 23c.

**Eggs.**—All offerings meeting a good demand at prices generally 1/2c above last week's figures. Fresh gathered extras, 27¢@28c; extra firsts, 25¢@26c; firsts, 23¢@24c per dozen.

**Poultry.**—Dressed—Firm, with chickens and fowls slightly higher. Fresh killed western chickens, 17¢@24c; fowls, 15¢@17 1/2c; turkeys, 16¢@17c per lb.

#### Boston.

**Wool.**—The wool market continues active and strong. Fleece wools are pretty well sold up, especially the medium grades. This is restricting the movement in Ohio and Michigan wools. Michigan 1 1/4-bloods have been selling at 30c

per lb. The amount of this grade is small. Fine fleeces are more plentiful and so far the demand for delaines and fine clothing wools is not large. A few sales of fine unwashed are reported at 24c and medium clothing wools at 27c. Dealing in territory wools constitutes the largest portion of the transactions.

#### Elgin.

**Butter.**—Market is firm at 27 1/2c per lb., which is an advance of 1 1/2c over last week's quotation.

### THE LIVE STOCK MARKETS.

#### Buffalo.

September 9, 1912.

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

Receipts of stock here today as follows: Cattle, 185 cars; hogs, 75 double decks; sheep and lambs, 70 double decks; calves 1,250 head.

With 185 cars of cattle on our market here today, all the medium weights and female stuff all sold strong to 15c per cwt. higher than last Monday. The heavy weight cattle were in slow demand, and sold just about 25c per cwt. lower than last Monday's price.

We quote: Best 1,350 to 1,500-lb. steers \$9@9.50; good prime 1,200 to 1,300-lb. do., \$8.50@8.85; do. 1,100 to 1,200-lb. do., \$8.25@8.75; medium butcher steers, 1,000 to 1,100, \$7.10@7.65; butcher steers, 950 to 1,000, \$6.60@7.10; light butcher steers, \$5.75@6.25; best fat cows, \$5.50@6.10; good to best do., \$4.65@5.75; fair to good do., \$4@4.50; common to fair do., \$3.25@3.75; trimmers, \$3@3.25; best fat heifers, \$6.75@7.75; good to best heifers, \$6.50@7.15; fair to good do., \$5@5.50; light butcher heifers, \$4.75@5.25; stock heifers, \$4.25@4.50; best feeding steers, dehorned, \$5.50@5.75; common feeding steers, \$4.75@5; stockers, inferior, \$4.25@4.50; prime export butcher bulls, \$5.75@6; best butcher bulls, \$5.25@5.50; bologna bulls, \$4@4.50; stock bulls, \$4@4.50; best milkers and springers, \$6@7; common kind do., \$35@45.

Receipts of hogs today was some heavier than the past few Mondays, about 75 double decks on sale. Light receipts and stronger markets all over the west stimulated our buyers. While the early trade was slow, general market was strong to 5c higher than Saturday's average. Trading very uneven, weights more so than quality regulating the price. Some very choice hogs weighing around 250 lbs. sold at \$9.25; general sales of light mixed \$9.40@9.50, with a few decks of very choice yorkers that were closely sorted up to \$9.60. Pigs generally \$9.25; roughs, \$7.50@8; stags, \$6.50@7.25.

The sheep and lamb market was active today, with prices about 10c higher than the close of last week; most of the choice lambs selling for 8c; few choice at \$8.10. Yearlings, \$5@6. Look for about steady prices the balance of the week.

We quote: Choice lambs, \$8@8.10; cull to fair do., \$5.50@7; yearlings, \$5@6; bucks, \$2.50@3; wethers, \$4.75@5; handy ewes, \$4@4.25; heavy ewes, \$3.25@4; cull sheep, \$2@3; veals, choice to extra, \$11@11.50; fair to good do., \$7.50@10.50; heavy calves, \$4.50@6.

#### Chicago.

September 9, 1912.

Cattle. Hogs. Sheep. Receipts for week... 44,957 99,840 135,735

For previous week... 41,946 99,099 143,744

Same week last year... 46,769 98,889 152,478

Shipments for week... 17,703 27,814 26,986

For previous week... 17,328 25,878 31,369

Same week last year... 18,532 19,180 70,411

Cattle receipts today were 20,000, including 6,000 western rangers. Choice grade natives held steady but there was a weak tone in trade for medium and plain grades of value at \$7@8.50, as well as good grade handy weights at \$9@9.50. These sold steady to 10c lower than the close of last week. Thirty thousand cattle at the Kansas City market entered a weakening influence in the local trade. Western Kansas has been hit by a drought and a shortage of grass as well as water there was the chief reason for the over-run at the Kansas City market. Prime Iowa 1,253-lb. Hereford steers topped at \$10.70 and a fair quota of choice 1,250 to 1,450-lb. steers made \$10@10.50. Western rangers sold steady at 10c lower. Native cows and heifers were 10c lower while bulls held steady. Calves went 50c lower, bulk at \$11@11.50. Feeder and stock steers were steady.

Hog receipts at 29,000 found a good demand, sales at the outset being 5c higher but later prices showed recession to Saturday's basis. Tops sold at \$9@9.25, bulk at \$8.20@8.80. Average weight of hogs last week was 235 lbs., one pound lighter than the previous week, and 6 lbs. under a year ago. Sheep and lamb receipts were 38,000 and general prices showed a range steady to 10c higher than last week's closing. A top of \$7.55 was made for range lambs while wethers sold up to \$4.65.

Cattle trade last week hardened some from the weakness shown the previous week, despite an increase in supplies. Beef demand has of late shown some strength and killers, having no surplus beef stocks, were forced to buy more freely. Result was an advance of 15¢@25c in general prices for steers and she stock while feeder cattle values also scored largely 25c gain. Prime Iowa beeves sold up to \$10.70, a new record price in the history of the market. This lot has been on full feed since February 1 last. A fair quota of choice heavy steers sold at \$10.15@10.50, and prime 974-lb. yearlings went at \$10.25, a new record yearling price. Bulk of fair to good 1,200 to 1,350-lb. corn-fed steers made \$8.75@9.85, while medium short-fed light cattle brought \$8.10@8.65 and light grass-fed natives went mainly at \$7.25@7.85 with tailings down to \$6.25. Range steers also closed 10¢@20c higher, a run

of 15,800 last week meeting strong packer call. Top rangers made \$9.25 and bulk sold at \$7.25@8.35. Native feeding steers of choice grade cost up to 7.35 and most fair to good 700 to 900-lb. feeders made \$6.15@6.85 with common to good stockers at \$5@5.85 and stock heifers at \$4.40@5. Heifers of prime grade sold at \$8@9 and common to good killers at \$4.75@6. Beef cows made \$5.40@6.50 for common to good, and calves went at highest prices on record, a fancy lot selling at \$12, while bulk of veal stock brought \$11@11.75. Milch cow values declined \$5 from the week before, on short eastern demand. Few sold above \$80 and a spread of \$50@70 took medium to good big milking animals.

The hog market is working higher for prime butchers and light weights and lower for the heavy and mixed packing. Last week light weights of prime grade advanced to \$9.10, the highest since October, 1910, and bulk of smooth butcher and light bacon classes sold at \$8.50@8.90. Heavy packing grades declined 15¢@20c from the week before and mixed packing were down 10¢@15c. Fresh meat demand has been partial to the light loins and tenderloins and this put the bacon and butcher classes in best favor with packers. No complaint is made against the demand for lard hogs, however, and salted meats future options have held in a fairly firm position. Thus the packing trade has had small reason to pound the market. Growers have no complaint to make over market conditions. Packing sows are selling at \$7.60@8 and well fattened heavy barrows at \$8.25@8.60, and these prices are on a quiet remunerative basis. Bullish sentiment pervades the trade as regards prospects for butcher and light weights and there is still prediction of \$10 hogs later this season but a wide spread in values between common heavy and choice light weights is certain to prevail. Selected packing hogs have sold at \$8.15@8.30 with fancy heavy shipping up to \$8.75 while a range of \$7.90@8.35 took mixed packing grades. Pig supplies continued liberal and sales were at \$5.50@8.25.

Sheep and lambs were marketed freely last week though because of the Labor holiday the crop fell below that of the week before. Values were maintained at a steady to strong basis on the close as compared with the week before, though some previous sales in mid-week, especially lamb trades were 10¢@15c higher. Prime range lambs sold at \$7.45 and a good sort at \$7@7.25 with the plainer grades at \$6.50@6.85. Native lambs went at \$5.25@7.10 for common to choice and a spread of \$5.50@6.50 took range feeding lambs. Fat wethers made \$3.90@4.65 and yearlings brought \$4@4.85 with native and range ewes at \$3.25@4.25. Feeding wethers sold at \$3.75@4.50 and feeding yearlings at \$4.50@5.30.

Horse market continued mean for all excepting choice drafters. There is a small demand from the east at this time and the trade is urging shippers to hold back common equines. Country call is limited since there is a generous supply of work horses on the farms for the harvest. Good to choice drafters sold up to \$250@3 and a medium kind at \$200 while fair general purpose horses were bought at \$175 and common down to \$100. Farm work horses sold at \$100@200 and fair to good grade of feeding horses at \$150@210 while wagon horses made \$140@190.

### LIVE STOCK NOTES.

Another new high record has been paid for fancy beef steers, 44 head having sold on the Chicago market last week at \$10.70, an advance of 5c over previous banner price, and showing 45c gain over the highest figure paid on the market during the Civil war. The new top load lot were Nebraska bred Herefords fed in Iowa by Miller Bros., big handlers of live stock and the United Dressed Beef Co., of New York, was the buyer. This drove averaged 1,342 lbs. and had been on full feed since February last. They received ear corn and 100 lbs. of molasses feed daily while clover hay was fed as a roughage. At time of going on feed the steers averaged 900 lbs. and their cost as thin stock was \$6.15. The price they brought thus netted the feeders a handsome profit.

New record average price for beef steers was made in August, the average being \$8.40 while standing against \$7.90 in July, \$6.95 in August, 1911, and \$6.85 in August, 1910. Stocker and feeder cattle made an average of \$5.70 last month against \$5.40 in July and \$4.45 in August a year ago. Hogs averaged \$8.25 in the month, an advance of 60c over July and 95c higher than a year ago. Lambs averaged \$7.10, a decline of 15c from July and 75c above August last year, while sheep averaging \$4.05 were 20c lower than July and 75c higher than a year ago.

Iowa College of Agriculture last week ended a pork growing experiment by selling two carloads of hogs at \$7.70@8.60, the former load being heavy sows which had raised a crop of pigs this season and have been on pasture all summer. The higher priced load comprised butcher pigs which had been fed a ration of corn and meat-meal, a packer concentrate which is proving highly profitable as a pork grower. At least this is the verdict of the Iowa professor, John M. Evvard, who had charge of the recent experiment. "Feeding meat-meal pays well in economic pork production," said Prof. Evvard, "where the proper proportion is given the hogs. At Iowa station we fed one-fifteenth part of meat-meal in connection with corn and clover hay and have made pork gains at cheaper cost than in years past."

**WANTED.**—man and wife on small farm near Detroit, must be experienced in general farming. Address, H. J. Michigan Farmer, Detroit.



## THIS IS THE LAST EDITION.

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

## DETROIT LIVE STOCK MARKETS.

Thursday's Market.  
September 12, 1912.

Cattle.  
Receipts, 1,087. Market 10@15c higher than last week.

We quote: Extra dry-fed steers (quotable), \$8@9; steers and heifers, 1,000 to 1,200, \$6@7.50; do. 800 to 1,000, \$5@6; grass steers and heifers that are fat, 800 to 1,000, \$4.25@5.50; do. 500 to 700, \$4.25@4.75; choice fat cows, \$5.25@5.50; good do., \$4.50@5; common cows, \$3.25@4; canners, \$2@3; choice heavy bulls, \$4.75@5.50; fair to good bolognas, bulls, \$4.25@4.50; stock bulls, \$3@3.75; choice feeding steers, 800 to 1,000, \$5.25@5.75; fair feeding steers, 800 to 1,000, \$4.50@5; choice stockers, 500 to 700, \$4.50@5; fair stockers, 500 to 700, \$3.75@4.25; stock heifers, \$3.50@4; milkers, large, young, medium age, \$4@6; common milkers, \$2.50@3.50.

Spicer & R. sold Sullivan P. Co. 7 butchers av 767 at \$4.85, 1 cow weighing 680 at \$3, 4 do av 1,042 at \$4.90, 2 cow and bull av 905 at \$4; to Morgan 5 stockers av 700 at \$5, 3 do av 553 at \$4.50; to Fry 16 butchers av 660 at \$4.50; to Applebaum 4 do av 445 at \$4; to Mich. B. Co. 4 cows av 875 at \$3.80, 3 steers av 927 at \$5.50, 1 do weighing 700 at \$5; to Newton B. Co. 1 canner weighing 670 at \$2; to Thompson Bros. 7 butchers av 590 at \$4.35, 3 cows av 1,040 at \$4, 1 bull weighing 880 at \$4.25; to Newton B. Co. 2 canners av 695 at \$3, 11 cows av 835 at \$3.25, 2 do av 770 at \$3.50; to Sullivan P. Co. 2 bulls av 1,035 at \$4.65; to Thorburn 5 stockers av 660 at \$5, 2 do av 610 at \$5.

Haley & M. sold Bray 2 cows av 960 at \$3.80, 3 do av 913 at \$3.25, 5 do av 970 at \$3.75, 4 do av 850 at \$3.50, 4 do av 715 at \$3.25; to Newton B. Co. 2 do av 900 at \$3.50, 1 do weighing 1,050 at \$4.50, 1 bull weighing 680 at \$4; to Goose 13 cows av 940 at \$4.50, 9 do av 480 at \$4; to Riley 15 feeders av 730 at \$5.25; to Benz 3 steers av 843 at \$6.50; to Applebaum 3 cows av 712 at \$4; to Kamman 8 butchers av 732 at \$5.10; to Rattkowsky 11 do av 730 at \$4.35, 4 do av 717 at \$4, 3 do av 823 at \$4.10; to Marx 7 do av 753 at \$5.25; to Schlischer 10 do av 540 at \$4.40; to Thompson Bros. 6 do av 837 at \$5.25; to Sullivan P. Co. 11 do av 836 at \$5.35; to Thompson Bros 2 cows av 980 at \$3.75, 1 steer weighing 1,140 at \$5.25, 3 cows av 1,050 at \$4.50, 2 do av 910 at \$3.75; to Lachal 20 stockers av 497 at \$4.50, 8 do av 470 at \$4.50; to Mich. B. Co. 19 butchers av 673 at \$4.50, 1 bull weighing 1,320 at \$5, 1 do weighing 1,830 at \$4.75, 1 do weighing 1,560 at \$5.50, 5 butchers av 858 at \$4.50, 4 do av 795 at \$5.50, 11 cows av 865 at \$4; to Riley 10 feeders av 790 at \$5.70; to Thelen 12 stockers av 692 at \$5, 2 do av 625 at \$5.

Roe Com. Co. sold Sullivan P. Co. 7 heifers av 797 at \$5.25, 6 cows av 928 at \$5.25, 3 do av 920 at \$4, 11 butchers av 732 at \$5, 14 do av 757 at \$5.40; to Hammond, S. & Co. 24 steers av 1,044 at \$8, 21 do av 866 at \$6, 5 do av 784 at \$4.75, 1 canner weighing 750 at \$3.50; to Wyness 16 stockers av 575 at \$4.25, 13 do av 435 at \$4.25, 26 do av 500 at \$4.25; to Kamman B. Co. 9 butchers av 774 at \$5.40; to Newton B. Co. 16 do av 755 at \$3.50, 1 cow weighing 800 at \$3.25, 1 do weighing 1,050 at \$4.50; to Rattkowsky 6 butchers av 600 at \$4.25, 4 do av 422 at \$4.25; to Parker, W. & Co. 1 bull weighing 810 at \$4.25.

Bishop, B. & H. sold Goose 6 butchers av 405 at \$4; to Parker, W. & Co. 1 bull weighing 1,470 at \$4.50, 1 do weighing 730 at \$4.50, 2 heifers av 695 at \$4.50, 4 cows av 1,050 at \$4.25, 5 steers av 762 at \$6, 10 do av 721 at \$5, 1 cow weighing 930 at \$4.25, 2 bulls av 1,000 at \$4.50, 1 cow weighing 1,100 at \$4.50; to Greene 2 stockers av 550 at \$4.50, 5 do av 584 at \$5; to Rattkowsky 3 cows av 847 at \$3.75, 2 cow and bull av 1,345 at \$5.10; to Thompson Bros. 2 butchers av 470 at \$4, 4 steers av 825 at \$5.60; to Sullivan P. Co. 3 butchers av 797 at \$4.50; to Kamman 12 steers av 890 at \$6.10; to Newton B. Co. 5 butchers av 748 at \$3.40; to Sullivan P. Co. 2 bulls av 905 at \$4, 1 do weighing 1,150 at \$4.50, 2 steers av 915 at \$5.50, 2 do av 810 at \$5, 3 do av 920 at \$5.50, 6 butchers av 521 at \$4; to Thompson Bros. 3 cows av 970 at \$5, 4 do av 960 at \$5; to Regan 8 butchers av 503 at \$4.25, 2 do av 615 at \$3.75; to Schlischer 9 cows av 852 at \$3.85; to Bresnahan 27 stockers av 557 at \$4.35; to Sullivan P. Co. 13 cows av 945 at \$4.25, 11 do av 1,000 at \$5, 4 do av 927 at \$3.65, 2 do av 783 at \$4, 2 steers av 630 at \$6, 4 do av 890 at \$6.75, 7 do av 584 at \$4.75, 4 do av 682 at \$4.

Veal Calves.  
Receipts, 424. Market active; best grades 25c higher; common steady. Best \$10@11.25; mediums, \$7@9; heavy, \$3.50@4.50.

Bishop, B. & H. sold Thompson Bros. 5 av 200 at \$10, 3 av 160 at \$10.25; to Sharpiro Bros. 7 av 225 at \$5; to Parker, W. & Co. 1 weighing 120 at \$11, 14 av 155 at \$10.50, 5 av 140 at \$10, 5 av 125 at \$9.75, 1 weighing 100 at \$9; to Hammond, S. & Co. 3 av 160 at \$11.25, 2 av 145 at \$10.50; to Mich. B. Co. 5 av 185 at \$4; to Hammond, S. & Co. 5 av 165 at \$6.50, 1 weighing 140 at \$11.

Spicer & R. sold Burnstine 1 weighing 120 at \$10, 2 av 140 at \$9; to Mich. B. Co. 2 av 185 at \$4, 1 weighing 260 at \$7, 2 av 120 at \$8, 2 av 90 at \$7; to Burnstine 1 weighing 210 at \$11.

Roe Com. Co. sold Sullivan P. Co. 1 weighing 250 at \$9, 1 weighing 260 at \$8, 3 av '65 at \$11; to Burnstine 3 av 135 at \$9, 5 av 225 at \$6; to Goose 7 av 200 at \$5, 6 av 195 at \$5, 8 av 250 at \$5.50; to Thompson Bros. 12 av 160 at \$10.  
Haley & M. sold Burnstine 2 av 125 at \$10, 1 weighing 90 at \$8, 2 av 220 at \$6, 4 av 155 at \$9, 2 av 280 at \$6, 3 av 130 at \$9; to Rattkowsky 3 av 225 at \$5.50; to McGuire 1 weighing 130 at \$10, 1 weighing 150 at \$10.50, 3 av 250 at \$6, 1 weighing 190 at \$10, 2 av 190 at \$10.50, 1 weighing 200 at \$8, 6 av 160 at \$10.50.

## Sheep and Lambs.

Receipts, 5,690. Market steady with Wednesday; best lambs 50c higher than last week; sheep steady. Best lambs, \$7@7.25; fair to good lambs, \$6@6.50; light to common lambs, \$4.50@5.75; fair to good sheep, \$3.25@3.50; culls and common, \$2@2.50.

Roe Com. Co. sold Hayes 21 lambs av 60 at \$6; to Thompson Bros. 9 do av 92 at \$7; to Hammond, S. & Co. 7 sheep av 110 at \$2.50, 20 do av 125 at \$3.25; to Sullivan P. Co. 5 lambs av 60 at \$5.50, 47 do av 80 at \$7; to Barlage 79 do av 58 at \$6, 29 do av 55 at \$5.75; to Mich. B. Co. 26 do av 56 at \$6.65.

Bishop, B. & H. sold Martin 15 feeders av 55 at \$5.50, 138 do av 56 at \$5.50, 62 sheep av 90 at \$3; to Wilson 393 lambs av 80 at \$6.65, 68 do av 73 at \$6.40; to Hammond, S. & Co. 38 sheep av 120 at \$3.25, 10 do av 113 at \$2.50, 11 do av 140 at \$2.50, 67 do av 145 at \$3.50, 7 do av 85 at \$2.50, 15 do av 100 at \$3.50, 3 do av 92 at \$3, 10 do av 103 at \$3.50, 34 lambs av 83 at \$7.25, 17 sheep av 100 at \$3.50, 24 do av 95 at \$3.25; to Thompson Bros. 13 lambs av 75 at \$7; to Breitenbeck 40 yearlings av 90 at \$4.50, 10 do av 71 at \$4, 52 lambs av 65 at \$6.50; to Newton B. Co. 128 do av 65 at \$6.50; to Sullivan P. Co. 44 do av 70 at \$6.50; to Parker, W. & Co. 93 do av 73 at \$6.50; to Martin 22 feeders av 60 at \$6.25, 36 do av 62 at \$6; to Mich. B. Co. 14 lambs av 65 at \$6.25, 73 do av 65 at \$6.50; to Nagle P. Co. 57 do av 65 at \$6.50, 24 do av 70 at \$6.75; to Fitzpatrick Bros. 54 sheep av 120 at \$3.40, 18 do av 95 at \$3.25, 15 lambs av 65 at \$6.25; to Sullivan P. Co. 44 do av 55 at \$5.25, 32 do av 55 at \$5, 17 sheep av 90 at \$3; to Fitzpatrick Bros. 93 lambs av 70 at \$6.75; to Nagle P. Co. 38 do av 70 at \$6.65, 56 do av 73 at \$6.60.

Haley & M. sold Rattkowsky 7 yearlings av 150 at \$4; to Mich. B. Co. 50 lambs av 82 at \$7; to Newton B. Co. 62 do av 60 at \$6.25, 101 do av 70 at \$6.75; to Law 61 do av 73 at \$6.75, 18 do av 70 at \$6.75, 81 do av 70 at \$7, 48 do av 78 at \$6.75; to Eschrich 98 do av 55 at \$5.50; to Hickey 90 sheep av 100 at \$3.40, 22 do av 105 at \$3.40.

Spicer & R. sold Thompson Bros. 19 lambs av 45 at \$5; to Hayes 14 sheep av 75 at \$3.25; to Mich. B. Co. 18 do av 76 at \$3.25, 11 lambs av 75 at \$4.85, 15 do av 70 at \$6.75, 16 do av 55 at \$5.50, 49 do av 60 at \$6.60; to Thompson Bros. 16 sheep av 90 at \$2.75, 27 lambs av 60 at \$4.50; to Sullivan P. Co. 20 lambs av 80 at \$7.15, 46 do av 75 at \$7.25, 15 sheep av 80 at \$2.75; to Mich. B. Co. 28 lambs av 70 at \$5.80.

Hogs.  
Receipts, 3,007. None sold at noon; looks 10c lower than on Wednesday or last week's close.

Range of prices: Light to good butchers, \$8.75@8.85; pigs, \$7.75@8.25; light Yorkers, \$8.75@8.85; heavy, \$8.50@8.80; stags one-third off.

Roe Com. Co. sold Sullivan P. Co. 235 av 190 at \$8.85, 37 av 200 at \$8.75, 31 av 210 at \$8.70.

Bishop, B. & H. sold Hammond, S. & Co. 410 av 190 at \$8.85, 615 av 190 at \$8.80, 325 av 175 at \$8.75, 300 av 160 at \$8.70.

Haley & M. sold Parker, W. & Co. 240 av 190 at \$8.80, 140 av 170 at \$8.75, 60 av 140 at \$8.70.

Spicer & R. sold same 210 av 190 at \$8.80, 80 av 190 at \$8.85, 150 av 170 at \$8.70.

Dean Webster, of the Kansas Agricultural College, who has just finished a 1,500 mile auto trip through 25 counties in the Sunflower state declares that in direct contrast to conditions a year ago Kansas will have an abundance of feed this fall and very few cattle to consume it. He declares that in many sections it is now shown, although breeding will be considerably increased another year.

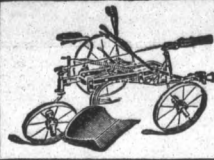
## VETERINARY.

(Continued from page 210).

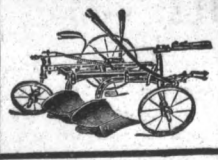
is now suffering from the results of navel infection. Apply one part red iodine mercury and ten parts cerate of cantharides every week or ten days until a recovery takes place.

Soreness of Shin.—We have a gray mare 14 years old that has worked all right up to about three weeks ago, when she was taken lame in left fore leg and I am inclined to believe the lameness low down. She starts lame and limps for perhaps one-half mile, then seems to travel sound. When in pasture she runs and plays much like a colt and sometimes suddenly goes lame, crippling badly until she warms out of it. She has been kept in basement barn, cement floor most of the time, and I might add she was brought from southern portion of state last spring, but so far as we know has never been lame before. M. L. H., Fostoria, Mich.—I am inclined to believe that your mare strikes her shin or fetlock joint with opposite foot, causing temporary soreness. The lameness leaving her soon as pain ceases. Apply one part fluid extract arnica, one part fluid extract opium and ten parts alcohol to shin, fetlock and coronet two or three times a day. It is possible by changing her shoes, it would prevent her striking or apply shin boot.

For Sale—170 Short Yearling Western Feeder Sheep at \$4.25 a head.  
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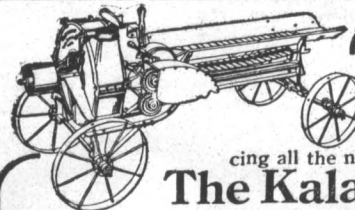
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All these convenient arrangements—savings—trials, etc.—are yours when you buy a Kalamazoo. You can see for yourself that they mean *everything* to you in the purchase of a stove. But get the book and let us show you what every one of these offers will do *in your own case*. You can't realize the liberality of this offer until you read the detailed explanation in the stove book.



Kalamazoo  
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## Write for Book of 400 Stoves

Probably the finest, most beautifully illustrated, and valuable work ever issued on this subject. A regular encyclopedia of stove knowledge—sent free if you'll mail the coupon or postal or letter. **Learn** how you can use a Kalamazoo for 30 days before you decide to buy. **Test it.** Have a fire in it every day. **Heat** your home or cook all your meals. Use it just as if it were already yours. **Don't make your decision until the 30 days are up.** Then send it back if it hasn't done all we claim—and convinced you that it's the only stove for you.

Remember the book shows all kinds of kitchen stoves and heaters—400 of them, big and little, for hard and soft coal, coke and wood, with ornate nickel trimming or very simple. Get the information about stove manufacture and selling—all the *inside trade secrets*. You need these facts for reference.

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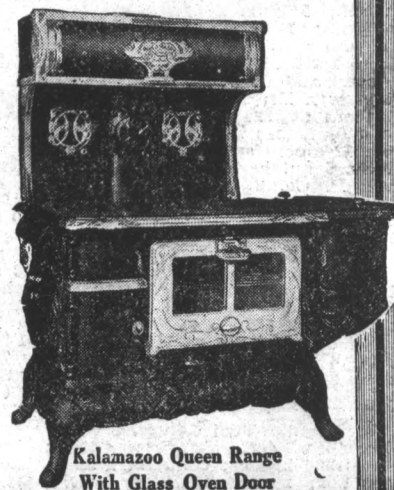
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