

# MICHIGAN FARMER

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## FARM NOTES.

### Forage Crops for the Corn Field.

I would like to ask through your good paper if there is anything to sow in corn when I get through cultivating the last time, for a forage crop. I have two pieces of corn and only had enough stable manure to cover one piece. I have been told that sand vetch makes a good forage crop, so please give me your opinion about it and how much to sow per acre.

Lapeer Co.

W. P.

The topic announced for special discussion during July in the Michigan Farmer is "Pastures, Catch Crops and Cover Crops," and while this question will doubtless be answered more fully in the articles which will appear on that topic, it will not be out of place to anticipate that discussion by touching on that phase of it which is mentioned in this inquiry. W. P. does not state what use he wishes to make of the forage crop, but the only logical use to make of such a crop is as a late fall and early spring pasture for the farm stock. It makes a difference what kind of stock it is desired to pasture as to what crops should be sown in the standing corn at the last cultivation. If sheep, young cattle and hogs are to be provided for, there is probably nothing better than a combination of rye and rape, or perhaps rye and turnips. If dairy cows are to be pastured, the rape or turnips will have a tendency to taint the milk with an unpleasant flavor, and these had better be omitted. Rye sown in the corn at the last cultivation, if the weather conditions are favorable for its germination, will make excellent fall pasture for all kinds of stock, and even for dairy cows, since while the flavor of the milk will not be equal to that produced when the cows are on June pasture, it will not be noticeably objectionable.

Or, in case the corn is cut in reasonably good season, the rye may be sown after the cutting is done and still make excellent fall and spring pasture. The rye can be pastured as long as the weather is open, and in late falls will prove a great help in saving the winter feed. In an exceptional season, the writer pastured rye sown in the corn, with little supplementary feeding until Christmas. Of course, this was an exception, but it illustrates the possibilities of this catch crop.

While sand vetch is at once an excellent forage crop and a good soil renovator, and from the latter standpoint would perhaps be superior to the crops mentioned since it is a legume and would add some actual plant food to the soil in addition to conserving the available fertility already present, yet the writer

knows nothing about the practicability of sowing it in corn. However, it would be well worth the trial on an experimental scale at least. It should be sown with rye at the rate of about three pecks of vetch seed to a half bushel of rye per acre. The vetch is a trailing plant or vine, and the rye holds it up from the

south, and we believe that in time varieties will be developed and acclimated which will give good results in Michigan for this purpose. Indeed, it might be profitable to experiment with them on a small scale whenever favorable conditions are present at the last cultivation of the corn. However, it is generally the

gard to the preparation for such a catch crop will not be amiss, not so much as regards the effect upon the catch crop as upon the corn in which it is sowed. Where the sowing of a catch crop in the corn has been planned, the cultivation of the corn should be kept up at frequent intervals until the latter crop is sown. This will conserve the soil moisture for the benefit of the corn to the greatest practicable degree, and will lessen the danger of serious root pruning at the time the catch crop is sowed. This late cultivation should, of course, be strictly surface cultivation and should not be too close to the corn plants at that. Then when the catch crop is put in there will be a better seed bed for it and more moisture to insure its germination and growth than would be the case if the corn were "laid by" for a few weeks previous to sowing the catch crop. In this case there would be undesirable root pruning even with reasonable care to avoid it, and in case dry weather should follow this would be sure to be detrimental to the corn crop.

### When to Cut Alfalfa.

I wish a little information in regard to alfalfa. Last year I sowed alfalfa and red clover mixed, on a strip of ground, and had a small yield, but this year I have a good yield. Now how often should this be cut for cow feed? Will the alfalfa and clover produce a good yield each year and when should the last cutting be done? This is on heavy clay soil and is high and dry.

O. C. H.

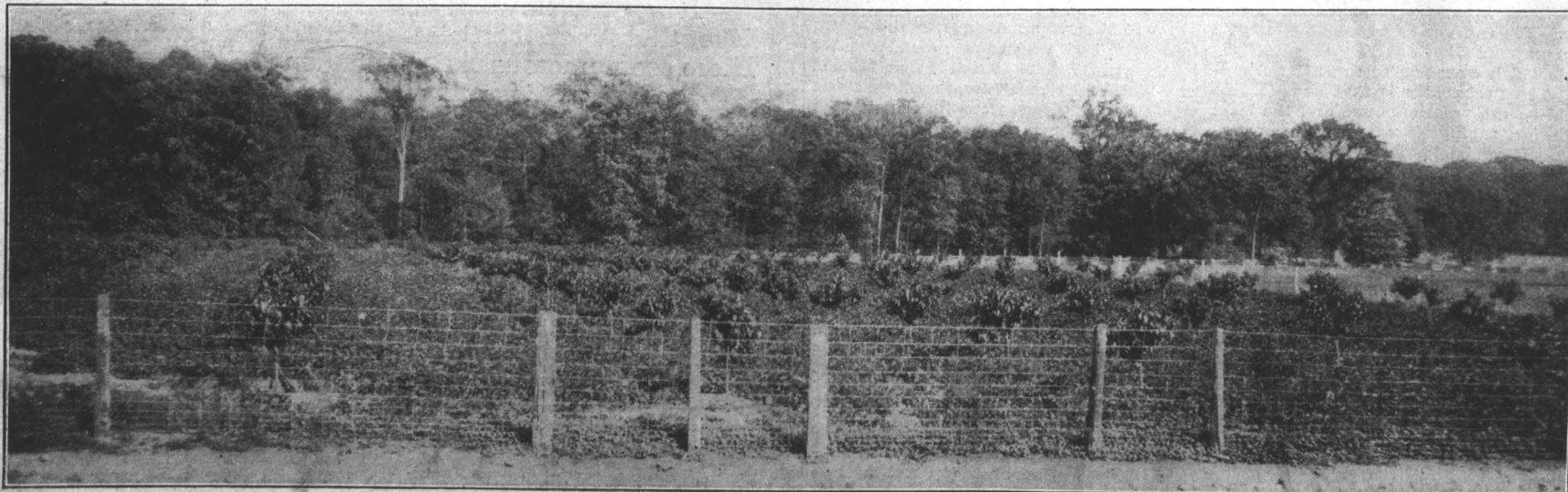
Indiana.  
Just as there is a best time to do everything else, there is a best time to cut alfalfa, and it is quite important that the cutting be done at just about the right time. When the alfalfa plants have about reached their maximum growth, which is about the time the plants nicely begin to bloom, new buds appear at the crowns of the plants in preparation for the next crop. When these buds are developed and ready to send up a new growth at once it is time to cut the crop. It should not be cut before these buds are well developed, and such cutting sometimes injures the future value of the stand very materially, especially when the plants are young and before they attain their maximum vigor. Nor should the cutting be delayed until these buds have sent up a sufficient growth to cause the new shoots to be clipped off by the mower in cutting the crop. The bloom of the plant is ordinarily a safe guide to follow in cutting alfalfa, but it is a good plan to examine the crowns to determine the condition of the new buds in order to time the cutting about right to stimulate, rather than retard the growth of the plants, since it is a well known fact that alfalfa is improved by cutting. Of the

This Large and Thrifty Young Orchard is One of Many Such in Leelanau Co.

ground. About August 20 is recommended as the best time to sow by those who have made an extended study and observation of the crop, although if sown in corn the time of seeding must, of course, depend somewhat upon weather conditions. It is better sown with a drill and covered rather deeply, especially on light soils, but where sown in the standing corn the cultivation for covering the seed should be comparatively shallow to avoid possible injury to the corn crop which would be likely to result from deeper cultivation so late in the season. The vetch grows rapidly and makes considerable fall feed under favorable conditions, and if the winter is not too severe it will live over winter and make a rapid growth in the spring before it is plowed down for a summer crop. The greatest objection to its use for this purpose would appear to be the comparatively high cost of the seed, although as above stated, it would be profitable to try it in an experimental way at least and compare it with the other crops above advised for forage and cover crops to be plowed down in the spring for green manure.

Soy beans are used as a forage and cover crop in the corn fields further

However, a word of caution with re-



A Young Peach Orchard on "Blue Gate Farm," Lapeer County, Mich.



two evils, however, should it be necessary to choose between them, the plants will be injured less by too late than by too early cutting.

Cutting too late in the fall is also damaging to the stand and future usefulness of the alfalfa. There ought always to be left a growth of at least a foot for winter protection. To insure this the alfalfa should not be cut later than the first week in September in a normal season, and the lateness of cutting should be gauged with an eye to climatic conditions. It will take some nerve to leave a crop of nearly or quite a ton to the acre on the ground in the late fall, but all authorities agree that it is profitable from the standpoint of the future yield to leave an ample growth for winter protection.

#### IMPROVING A RUN-DOWN FIELD.

I bought ten acres of land a few miles from Waukegan which has been cropped continuously for a number of years and nothing has been put back to enrich the soil. I put in a crop of rye last fall which I want to turn in this spring. I also want to put in any further crops and plow them in, that will help in increasing the fertility of the soil. I should then sow it to grass and let it remain in that state for several years. It has a heavy clay subsoil and the rye crop is quite light. Can you give me any suggestions about the proper procedure to follow in order to bring it back to a fair state of productiveness? It originally was covered with heavy white oak timber and was a good piece of land. At what stage in the growth of rye is it best to turn it under?

Illinois.

C. E. S.

I realize that it is somewhat dangerous to one's reputation to diagnose a case of soil exhaustion at a distance without having the information that one gets from actually seeing the soil. Perhaps it is not quite as dangerous in the case of diagnosing a soil condition as it would be for a veterinarian to diagnose a case from description, but it is somewhat similar in nature. However, I have had some experience in building up a run-down farm, and I have given the subject some little thought and from this experience and study of the subject I would advise about as follows: Most land with a heavy clay subsoil needs tile drainage. If this land needs tile draining then that should be done at once, because the after treatment necessary to build it up and make it productive again is well nigh useless if the soil does need draining. Of course, this is a phase of the question that one cannot tell anything about in a letter or inquiry. A rule given at college on this subject was, that if one would dig a post hole in the ground and at nearly any time of the year if water would stand for any considerable length of time in this hole, then that soil needed draining. It would pay to tile drain it. As I said, most soils with tenacious clay subsoil do need tile drainage. If this is a fact, then I would advise C. E. S. to thoroughly tile this field at once. It would be a splendid investment.

Much of the land that has been farmed for a number of years lacks lime. Much of it has an acid reaction. It is almost impossible to improve this land and get it in good condition again without growing a leguminous crop and it is almost impossible to grow a leguminous crop if the soil is acid. Consequently, the condition of the soil with regard to acidity should be determined. This can easily be done by burying small pieces of blue litmus paper in the soil and after leaving there for a short time notice whether the blue litmus paper has turned pink. If it has the soil is acid and if the soil is acid, the next thing to do to improve this field is to give it a good application of lime. You can use hydrated lime, caustic lime, ground limestone, or calcareous marl, which ever you can get the cheapest. The probability is that caustic lime would be the most effective and the least expensive, taking its value into consideration. It probably would take as much as one ton per acre and possibly a ton and a half per acre of caustic lime if this soil is sour; to get it in proper condition for permanent improvement.

Most soils that are run down or exhausted have lost their crop producing power; in other words, no longer grow profitable crops, largely because, by poor system of farming we have exhausted these soils of the vegetable matter. The soil particles settle down close together and exclude the air, they puddle and bake after excessive rain; in other words, they are in a pretty poor mechanical condition, and the only way to improve its mechanical condition is to incorporate vegetable matter. The incorporation of vegetable matter can be done more

cheaply by growing legumes, and common red clover is probably the most profitable legume to grow for this purpose, than in any other way. Of course, where one lives near a good-sized town and can get stable manure at a reasonable price, if you wanted to improve the field quickly it could be best done by heavy applications of stable manure plowed under. But if the stable manure cannot be procured then the best way is to grow common red clover in this latitude.

To grow leguminous crops or any crop which, when plowed under, will add vegetable matter to the soil, the soil itself must contain a certain amount of available plant food and the more available plant food it contains the larger will be these crops and the larger the amount of volume of vegetable matter which can be grown to incorporate with the soil and permanently improve it. When one supplies vegetable matter by the means of stable manure, he at the same time supplies plant food, but where one resorts to the growing of green manure for incorporation of vegetable matter in the soil, it is necessary to supply the plant food to grow these crops, and this can be easily and readily done by the use of commercial fertilizer. Now, here is the whole solution of the problem of making this run-down, worn-out, exhausted soil into a productive field again. First, drain the land if it needs draining. Second, treat the soil and apply lime if it needs it. Third, it is absolutely necessary to incorporate vegetable matter. Fourth, it is absolutely necessary to supply available plant food to grow the crop with which to improve the land.

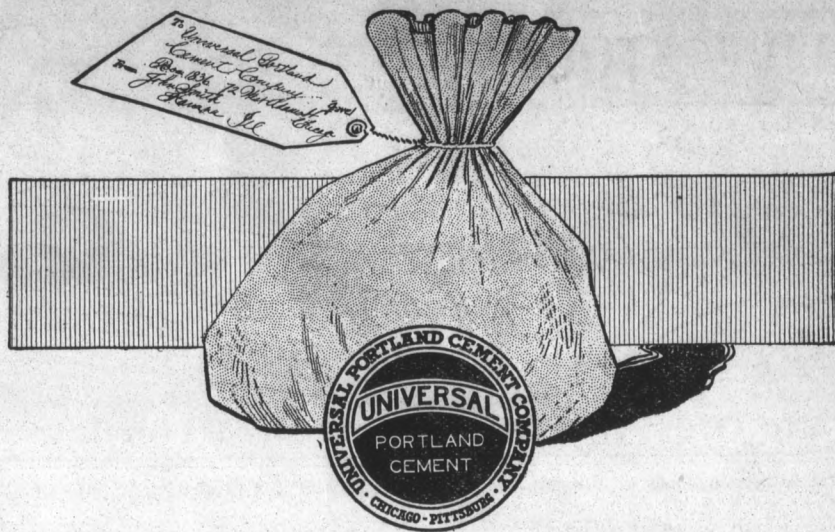
Of course, it was the right thing to sow the field to rye last fall. But the rye ought to have been fertilized. Plant food ought to have been supplied to grow a good crop of rye and not have a light crop.

C. E. S. says that what he wants to do is to continue to grow crops to plow under to permanently improve the soil. He is not figuring on getting any profitable crop. Now I think this is the wrong idea. Certainly it is right to figure on improving the soil, but it is entirely practical to not only improve the soil but to grow profitable crops at the same time. One can build up a poor soil and make it pay its own way just as well as to put a lot of time and lot of money to improving the soil in a slow sort of way. Therefore, I would plow under this rye just as soon as possible and not let it get too large, and then put in some crop. By supplying plant food liberally you will get a profitable crop, one that will make you some money, that will save time in laying the foundation for the permanent improvement of the land. You can get the crops off in time to sow to rye, if you don't get it off early enough to sow to wheat. Thoroughly prepare the land and use 400 or 500 lbs. of commercial fertilizer to the acre. Put in your wheat or rye and in the spring seed heavily to common red clover and, my word for it, if there is anything like favorable conditions, you will get a profitable crop of grain and you will get a stand of clover which will improve your land. You are in condition to grow a heavy clover sod and from then on you won't have to use fertilizer so liberally.

If you can get a stand of clover that will the next year cut say, two tons of clover hay per acre, and I believe you can with this treatment, you have filled this soil full of clover roots and incorporated a vast amount of vegetable matter which could not be done so well in any other way. The clover roots will have a wonderful effect upon the tenacious sub-soil. They will pry it apart, bore a full of holes, and when they decay will allow the moisture to sink down into this, and when the ground freezes in the winter time it will be pulverized and will be so much improved that one would hardly know from its action that it was the same soil. Now when you have secured this heavy clover sod your soil is in condition to grow almost anything.

Of course, it will cost a little money in the first investment to improve this field quickly. You can improve it with a less outlay of cash by doing it a little slower, but taking the time into consideration, it is, in my opinion, much cheaper to improve it in this way than it would be to grow a crop and plow it under and then grow another crop and plow it under, and lose the use of the land for two or three seasons and then not accomplish any more than you have in a year and a half by going at it thoroughly and supplying a liberal amount of plant food to grow the crops with.

COLON C. LILLIE.



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## LIVE STOCK

### ESSENTIAL POINTS IN THE FOAL'S CARE.

A recent report of experiment station work, published by the U. S. Office of Experiment Stations, contains some valuable advice on the care of the foal. Some of the essential points noted are the following:

When working the mare the foal should be left in the stall. He will fret at first, but gradually gets accustomed to being alone. For the first few days the mare should be worked only half a day. She will be soft and worry greatly, probably heating herself up quite badly, in which case it is a good plan to milk her almost dry on coming in at noon and then put her in a stall to eat a little hay until she cools off. After this she may be watered, turned in the stall with the foal, and fed her grain. Beginning with a half day in this fashion she may be gradually toughened back into doing her full share of the regular team work. The foal should never be allowed to suck milk from a warm mare, as it sets up indigestion and starts scours. A bucket of water should be kept in the stall so the foal may take a drink whenever he wants it.

A foal will begin to nibble at grain when he is about a month old, sometimes earlier. His first food should be oatmeal, allowing him such small quantities of this as he will eat. At six weeks of age a little bran may be added, to be followed later with grain. Grass should be supplied as soon as the foal wants it. When feeding bran or grain the supply should be renewed often so as to keep it fresh and sweet and any sudden changes in feeds must be avoided. If foals are thus cared for during the summer the weaning process is an easy one. When weaning the foal he should be kept away from his dam for good. Weanlings should have warm quarters during the first winter, and may be fed good oats and bran—one-fifth bran by weight—and choice hay free from dust and mold, the feed to be given often and a little at a time.

### BARN VENTILATION.

I am planning to build a barn this summer and wish to ask some advice in regard to the King air system of ventilation. I read Mr. Lillie's article partially describing the system, but wish to ask how many air vents, and what size should they be in the barn I wish to build? Also, how many and how large should the outlet flues or chimneys be? I send you a proposed ground plan of my basement. I expect to keep all stock in the basement, with feed above. Will build in a bank but not sink down so low but that I can have some windows in north wall on bank side. All outside doors to basement will be from the south side. Would like to have a door opposite each walk or feed alley but am afraid of weakening the wall too much. Wall will be of concrete, 18 inches thick, two feet below the ground, 10 inches wide at the top, with 8 to 8½ feet between floor and joist above. Size of building 40x80 feet, with 20-foot posts.

Montmorency Co. T. C. M.  
To be exact in the dimensions of the pure air intakes of the King System of ventilation you should have a sufficient number of them to have full capacity of your ventilating shaft or the big shaft which takes out the impure air. This can be figured out accurately if one desires to do so, but it is not necessary. From a practical standpoint you ought to have more than enough of these pure air intakes so that when the wind blows strongly from one direction the intakes on that side can be closed and still have a sufficient number of them on the other side of the barn to furnish a full amount of fresh air for the stock. If the wind blows very strong from a given quarter it is apt to force too much cold air into the stables. Of course, the size of the ventilating shaft depends upon the size of the barn and the number of cattle or other stock kept. For your size of barn 40x80 feet, I would say that you need a ventilating shaft 2½ feet square. This will be amply sufficient. Another point with regard to the pure air intakes, they should be small. You don't want large openings. If you do you will have a draught. An opening two inches wide and eight inches long is as large as they ought to be, and then have them distributed around the entire barn on all sides of it, and put in more of them than you think you will really need.

I do not believe you will have any trouble in putting in doors in front of every

one of your alleys with a cement wall of the dimensions which you speak of there will be no question but what there will be sufficient strength to hold up your building above.

As I have said many times in The Farmer, I am of the opinion that T. C. M. is making a serious mistake planning this stable, in cutting it up into small stables running crosswise. It would be much better, in my opinion, to have the stable run the entire length the narrow way of the barn 40 feet and have the cow stalls and the horse stalls on opposite sides of the driveway facing the outside of the barn. Have two feed alleys one on either side, then you can drive through the barn with the manure spreader or wagon and load the manure directly into it. This is the most economical way to handle the manure.

COLON C. LILLIE.

### BLOATING IN CATTLE.

The most common symptoms noticed are, first, the greatly distended abdomen, especially on the left side, then the labored breathing, with the mouth open, head down, and the appearance of being about ready to drop from suffocation. In most cases not accompanied by impaction the patient passes liquid faeces.

The animal shows depression by the drooping of the ears, semi-closed eyes and very little inclination to move.

Along the lines of treatment which may be mentioned are, the putting of a bit into the mouth and causing the animal to move about and thus cause belching of the gas. Another home remedy consists of spraying the abdomen with cold water, the effect being the contraction of the abdominal muscles, and they in turn cause contraction of the rumen and the passage of the fermented food on into the intestines and the belching of the gas.

Failing to remove the gas by any of the above methods, the only resort is by tapping with the trocar and canula. Some use a penknife, but if it is resorted to there is always danger of feed getting into the abdominal cavity.

After removing the gas some antiferment purgative should be administered.

Col. Ag. College. C. L. BARNES.

### LIVE STOCK NOTES.

J. H. Runner, a big all-around farmer and general stockman of Iowa, showed up at the Chicago stock yards recently with 20 head of choice Hereford yearling steers that averaged only 728 lbs. and brought \$6.25 per 100 lbs. On October 20 they were taken from their mothers, averaging 350 lbs., placed in a dry lot and furnished a light ration of oats, oil meal and as much clover hay as they would eat. The feeds suited them perfectly, and not a pound of the calf fat was lost. The feeds were gradually increased and furnished them for about two and a half months, after which they were started on chopped corn, oil meal and clover hay, furnished three times a day. This ration was furnished for a period of about half a year. When they got on full feed they were eating four and a half bushels per head of chopped corn per day and 25 lbs. of oil meal per head per day. On the 29th day of May they averaged on the farm 750 lbs., showing a gain of 400 lbs. over their weight when taken away from their mothers. The owner says he has always found it profitable to make baby beefs, taking care that the calf fat is not lost and to have them fat when marketed.

There is more animation in western wool markets, and prices are now fairly established after several weeks of waiting, during which time it was impossible for buyers and sellers to settle on terms. Several leading Montana cities report large transactions in the spring clip, sales ranging from 16½¢ to 18½¢ per lb., the bottom figure being paid for an inferior grade of wool. The largest sales were made at Helena, Billings and Miles City. The market is slower in opening in earnest in the older settled parts of the country, and in Ohio sheep sections farmers are holding their wool as high as 21¢ per pound, while bids range at 18¢ for medium, 15¢ for fine and 14¢ for rejections. The uncertainty of the outcome of the proposed tariff revision by congress has all along been the cause of unusual slowness on the part of buyers in making their usual spring purchases.

Live stock conditions on the Pacific coast are widely different from those prevailing in the middle west. Cattle have been selling recently in the Portland, Oregon, stock yards fully \$1.50 per 100 lbs. higher than east of the Missouri river and hogs about 80¢ per 100 lbs. higher. Evidently, there is great need of more live stock in that part of the United States. The Pacific coast farmers have gone wild over fruit orchards and alfalfa, and comparatively little attention has been paid to producing live stock, the result being that much of the meats consumed have to be furnished by regions considerably east of there.

The National Live Stock Association and the Cattle Raisers' Association of Texas have begun a vigorous campaign in opposition to free entry of cattle into the United States.

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# 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.

**Stifle Lameness—Atrophy of Muscles.**—I have a horse that shows stifle lameness and has considerable atrophy of hip muscle. A. F., Freeland, Mich.—Apply equal parts tincture cantharides, turpentine, aqua ammonia and raw linseed oil to stifle and hip twice a week.

**Barren Mare—Deep Milker.**—I have a mare that was served last July and has a colt one year old; every chance the colt gets, he sucks her and she seems to have considerable milk. She does not appear heavy as though in foal. Do you think she could have milk and not be with foal? W. H., Hartford, Mich.—Your mare might have milk in udder and not be with foal. Why don't you tease her with stallion and ascertain if she is not in heat.

**Fractured Leg—Enlarged Fetlock Joint.**—My three-year-old colt had his hind leg broken two years ago, but he recovered and although the leg is somewhat enlarged he travels sound. Can the thickening be reduced? He also has an enlarged fetlock with bunch on fore part of joint. I applied a blister, but it failed to reduce bunch. H. W., Sunfield, Mich.—Apply iodine ointment to enlarged fetlock three times a week and leave the fractured leg alone.

**Bruised Leg—Stocking.**—My four-year-old mare bruised her hind leg kicking in stable; it broke open and discharged pus for a day or two, then healed; now the leg is stocked and I would like to know what to apply. O. G. W., Bloomingdale, Mich.—Apply one part tincture iodine and four parts spirits of camphor to swelling once a day.

**Weak Heart.**—I have a 15-year-old mare that does not stand the heat very well, pants considerable on hot days and always blows when worked. She is not heavy coated and is not fleshy. J. B., Holland, Mich.—She should not be fed much bulky food, but kept on grain and grass. Mix together equal parts fluid extract nux vomica and fluid extract of digitalis and give her a teaspoonful at a dose in feed or water three times a day. Give a teaspoonful of tincture arnica at a dose in feed three times a day and wash body with warm water night and morning; this is done to induce more profuse perspiration. If it fails, increase the dose of arnica.

**Loss of Appetite—Sore Heels.**—I have four dairy cows that have always been big milk producers until this spring; now they do not appear to be sick but have little or no appetite for grass. A. J. F., Harbor Springs, Mich.—Give each cow 1 oz. fluid extract gentian, ½ oz. fluid extract cinchona and 1 dr. fluid extract nux vomica at a dose as a drench in a pint or two of water two or three times a day.

**Cow Holds Up Milk.**—We have a five-year-old cow that calved some three months ago; calf sucked her for four weeks; since then she has been milked by hand, but for the past two or three weeks is inclined to hold up milk. C. H., Holly, Mich.—Feed the cow and let her eat while you are milking her, and it will perhaps overcome the difficulty; also avoid excitement.

**Wounded Teat—Cow-Pox.**—We have a cow that tore teat on a woven wire fence and wound refuses to heal. I also have another cow that is troubled with white blisters on teats and udder. C. A. H., Imlay City, Mich.—Apply equal parts boric acid, powdered alum and oxide of zinc to wound twice a day, and apply one part oxide of zinc and three parts vaseline to blisters twice a day.

**Imperfect Udder.**—I bought a cow last winter; soon as I milked her, discovered that one-half of her udder was imperfect secreting only about one-half as much milk as the other one-half. Upon investigation I find that she has had some udder trouble for the past three years; she appears to be healthy every other way. H. S. T., Filion, Mich.—Your cow suffers from the results of an infected udder and will never be much better. By rubbing iodine ointment on udder twice a week, it will perhaps clear this blocking. Gentle hand rubbing has a good effect, but it should be done after milking.

**Chickens Over-fed and Under Exercised.**—I have 100 Brown Leghorn hens and for the past month have been getting only from nine to 20 eggs per day. These chickens appear healthy, have red combs, but the feathers are dropping off their heads and neck. I have them in a lot one-eighth of an acre, which I thought was run enough for 100 chickens. I feed them corn and oats and supply them with plenty of fresh water, adding some carbolic acid to it. I have kept this breed of fowls for the past five years and this is the first time they have not done well for me. R. D. S., Clayville, Va.—If you can give chickens more of a run and increase their exercise they will reduce in flesh and produce more eggs. They are over-fed and under exercised, which is right when fattening fowls, but wrong in egg production. Disinfect roost, clean roosting poles with kerosene. Instead of mixing carbolic acid in drinking water dissolve 1 oz. of powdered sulphate of

iron in six quarts of drinking water and it will tone them up, at the same time assist in destroying bowel parasites.

**Big Leg.**—I have a horse that has a big leg, the result of being kicked by other horses; most of the stocking has left, except below hock. I have been tempted to clip off hair and apply blister. A. C., Gaylord, Mich.—Blisters applied to chronic thick legs produce a harmful effect and they should never be applied to a badly inflamed one. Give him 1 dr. iodide of potassium at a dose in feed or water three times a day and his leg will slowly but gradually grow smaller. External applications applied during very hot weather generally do harm; however, showering leg with cold water will help.

**Sweeney.**—I have a three-year-old colt that we have been working which shows weakness and wasting of one shoulder. She shows slight lameness. N. V. C., Mt. Pleasant, Mich.—Work her lightly or give her rest and apply equal parts aqua ammonia, turpentine, tincture cantharides and olive oil to shoulder twice a week.

**Puller—Hard Hoofs.**—Can you give me any information in regard to the kind of a bit or appliance that can be used on a horse so that he can be controlled and still not make mouth sore. He is a puller and when the mouth becomes sore is nearly unmanageable. What had I better apply to soften hard hoofs? G. W. L., Jasper, Mich.—I have driven hundreds of pullers and controlled most of them with large bar bit, that did not hurt the mouth. The teeth should be looked at and the sharp points filed off. Kindness soothes all pullers. You might try a four-ring Rockwell or Berry bit.

**Dropsy.**—I have a cow that does not thrive; has a swelling between fore legs, but has poor appetite and seems to be weak. H. M. G., Springport, Mich.—Give her 1 oz. ground gentian, ½ oz. cinchona and 1 dr. ground nux vomica at a dose in one quart of water as a drench three times a day.

**Barren Cow.**—I have a five-year-old cow that we have failed to get with calf. She has been mated several times during the past year. W. E. H., Bridgeport, Mich.—Dissolve ¼ lb. bicarbonate of soda in a gallon of clean water and wash out vagina carefully and thoroughly daily for ten days or more and be sure and do it two or three hours before mating her. Have you had her served by different bulls?

**Irregular Strangles (Distemper)—Drop-sical Swelling.**—My eight-year-old mare had distemper a short time ago and seemingly recovered, but a bunch appeared on shoulder which is gradually growing larger and she has a soft, flabby swelling between fore legs. O. P., Standish, Mich.—Your mare suffers from an irregular form of strangles and the best treatment for her would be bacterial vaccine. Ask your Vet. to give her streptococcus bacterin, it is administered hypodermically and, of course, you could not treat her alone. If not convenient open abscess on shoulder and inject with one part carbolic acid and 20 parts water twice daily. Also give her 20 grs. quinine at a dose three times a day. The swelling between fore legs will disappear as soon as she gains strength.

**Sweeney.**—I have a three-year-old colt that I sweeneyed in one shoulder some six weeks ago; would like to know how it should be treated. R. E. F., Pontiac, Mich.—Blister shoulder with cerate of cantharides every ten days. If the colt is lame he should be rested.

**Wind Galls—Lymphangitis.**—My horse has wind puffs on both hind fetlocks and I applied biniodide of mercury and lard, which blistered him. Two days later I greased legs, since then the inside of hind leg is swollen and tender and I might add, the whole leg is stocked. There is no mark on leg to indicate an injury. J. V. J., Sandusky, Mich.—You should have applied vaseline to blistered parts, instead of rancid fat. The lymphatic glands of thigh are doubtless inflamed. Give 1 dr. iodide potassium and 2 drs. nitrate of potash at a dose in soft feed twice daily. Foment swelling with hot water three times a day. Apply equal parts spirits of camphor and tincture iodine to puffs once a day.

**Dry Joints.**—I have a five-year-old coach horse whose hock joints snap and crack when first moved, but it causes no lameness. T. G. P., Olivet, Mich.—Give him 1 dr. ground nux vomica and a dessertspoonful powdered rosin at a dose in feed twice a day for ten or 15 days. Apply camphorated oil to hock joints once a day.

**Bruised Shoulder.**—While running in barn yard my four-year-old horse fell and must have bruised his shoulder for the muscles swelled some and since then have grown smaller than normal. I am anxious to work him, therefore I would like him cured as quickly as possible. O. E. S., Charlotte, Mich.—Apply equal parts aqua ammonia, turpentine and raw linseed oil to shoulder every day or two. If he is not lame moderate exercise and light work will do him no harm.

**Muscular Weakness.**—I recently purchased a four-year-old mare and when worked her shoulder muscles tremble altogether too much. She also breathes hard and perspires very freely. R. M., Frankfort, Mich.—Give 1 dr. ground nux vomica, 1 dr. iodide potassium and 1 dr. powdered lobelia at a dose in damp feed two or three times a day. She should not be overworked and not fed a great deal of bulky food.

**Indigestion.**—I have 125 chickens that are five or six weeks old which act stupid for a day or two and then die. Their food supply consists of screenings of wheat and scraps. Mrs. G. B., Rodney, Mich.—Give each of your chickens half a teaspoonful of castor oil and a teaspoonful of olive oil at one dose, one dose only; also give the chickens some cooking soda and ginger in their feed. A change of food will help them.

## NEWTON'S HEAVE COUGH, DISTEMPER AND INDIGESTION CURE

The Standard Veterinary Remedy. 21 years sale. Send for booklet.



MAKES THE HORSE SOUND, STAY SOUND

## DEATH TO HEAVES

The first or second \$1.00 can cures Heaves. The third can is guaranteed to cure or money refunded.

\$1.00 per can at dealers, or express prepaid.

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## THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be removed with

## ABSORBINE

also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2 per bottle delivered. Book 3 E free.

**ABSORBINE, J.R.**, Liniment for mankind. Reduces Gout, Tumors, Wens, Painful, Knotted Varicose Veins, Ulcers, \$1.00 and \$2.00 a bottle at dealers or delivered. Book with testimonials free. W. F. YOUNG, P. D. F., 268 Temple St., Springfield, Mass.

## PIGS FOR SALE.

I keep about 2400 cholera proof brood sows and am selling fine grade

Yorkshire, Poland-China, Duroc and Tamworth Weaned Pigs at \$3 each.

ALVAH BROWN'S PIG FARM, GRAND RAPIDS, MICH.

**Fine Collie Pups For Sale.**—Six months. tan. Females only, very cheap to close out. Handsome, farm bred. Fleetfoot Kennels, Detroit, Michigan.

**T. C. ALCOCK**, Temperance, Michigan, Live Stock Auctioneer. Write for terms and dates.

## BREEDERS' DIRECTORY.

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#### ABERDEEN-ANGUS.

Herd, consisting of Trojan, Erica, Blackbirds and Prides, only, is headed by Egeon W. a Trojan Erica, by Black Woodlawn, sire of the Grand Champion steer and bull at the International in Chicago, Dec., 1910. He is assisted by Undulata Blackbird Ltd.

WOODCOTE STOCK FARM, Ionia, Mich.

#### TOP NOTCH HOLSTEINS

Top Notch registered young Holstein Bulls combining in themselves the blood of cows which now hold the record for milk and butter fat at fair prices.

McPHERSON FARMS CO., Howell, Mich.

#### 30 As Choice Holstein Cows

as you will find anywhere in Ohio or Michigan. I hope to sell 15 before Alfalfa haying time. You can have your choice of one or 15. A few good bulls and bull calves.

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**For Sale.**—Handsomed thoroughbred 10 months Holstein bull, backed by heavy producing families. An excellent individual at a bargain for an early sale. ROUEMONT FARMS, Detroit, Mich.

**Holstein Friesian Cattle.**—BULL CALVES, Grandsons of Canary Mercedes. W. B. JONES, Oak Grove, Michigan.

**HOLSTEIN-FRIESIAN** Cattle and Duroc Jersey sows. Bull calves for sale from A. R. O. Cows. E. R. CORNELL, Howell, Michigan.

**HOLSTEIN BULLS.**—1 with a 20 lb. Dam: "A grand one at a low figure. Several fine ones lower cost. LONG BEACH FARM, Augusta, Kalamazoo Co., Mich.

**HOLSTEIN BULL CALVES** For Sale.—From Sire has 75% of the blood of the sire of Grace Fayne 2nd's Homestead. E. COLLIER, Fowlerville, Mich.

—Having been put out of business by fire

#### FIRE I WILL SELL 25 COWS.

your choice, at a price never before made on high grade JERSEY COWS. Come and see them, they must go as I have no way of caring for my milk. E. L. MOSHER, Armada, Michigan.

**FOR SALE.**—Choice bred registered Holstein sires ready for service, from Advanced Registry dams. WILLIAM B. HATCH, Ypsilanti, Michigan.

**FOR SALE.**—Reg. St Lambert Jerseys. Cows and Bulls from high producing stock. C. A. BRISTOL, Fenton, Michigan.

**FOR SALE.**—Holstein Bull 2 years old \$125. Bull calves 6 months to 1 year \$50 to \$100. Bred heifers \$150 to \$200. Oldest herd in Ind. Send for Photos and Pedigrees. W. C. JACKSON, 715 Rex St. South Bend, Ind.

**HEREFORDS.**—Both sexes and all ages for sale. Also Poland-China hogs. ALLEN BROS., Paw Paw, Mich.

**BUTTER BRED JERSEY BULLS** FOR SALE. CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.

**JERSEY BULLS.**—Reg. Dams from six months to maturity. Ages from high producers. Prices right. W. E. SHELDON, Litchfield, Mich.

**JERSEYS FOR SALE.**—A few choice heifers bred. A. NEWMAN, R. No. 1, Marlette, Michigan.

**LILLIE FARMSTEAD JERSEYS.** HERD BULLS, Vidas Signal St. L. No. 58197. Jubilee's Foxhall, No. 82299.

Bull calves sired by these great bulls, and out of splendid dairy cows, many of them in test for register of merit. Also a few heifers and heifer calves for sale. Write for description and prices. Satisfaction guaranteed, or money refunded.

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**Register of Merit Jerseys.** Official yearly lot of young bulls from dams with official records of 483 pounds and upwards of butter.

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**DAIRY SHORTHORNS** of the Best Milking Families. All milk weighed and records kept. A young bull 5 months old for sale. Dam of Sire has averaged 55 pounds per day for 4 mos. W. W. KNAPP, R. D. 4, Watervliet, Mich.

**REGISTERED JERSEYS** For Sale—Some combining the blood of St Louis and Chicago World's Fair Champions by HERMAN HARMS, Reese, Mich.

**FOR SALE.**—Choice Shorthorn Cow due July 10, also choice double standard Polled Durham Bull. L. W. SUTHERLAND, Oxford, Mich.

**FOR SALE.**—Registered Shorthorn Cattle, both sexes not akin. JOHN SCHMIDT, R. No. 4, Reed City, Mich.

**DAIRY BRED SHORT HORNS.**—Bulls all still in the business. J. B. HUMMEL, Mason, Mich.

**SHEEP.**

**Oxford-Down Sheep** and Polled Durham cattle for sale. J. A. DE GARMO, Muir, Mich.

**Oxford Down Sheep.**—Good Yearling Field Rams and ewes of all ages for sale. I. R. WATERBURY, Highland, Michigan.

**Reg. Rambouillets.**—I have 100 ewes, among them all of my youngest and best, also 85 ewe and ram lambs. Live 2½ miles east of Morrice on G. T. Road. Address J. Q. A. COOK.

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**Durocs & Victorias.**—Growthy Spring Boars & Gilts of choicest breeding from Prize Winners. M. T. STORY, R. 248, Lowell, Michigan.

**BERKSHIRE PIGS** combining the blood of the Longfellow families—the world's best breeding Price \$15. C. D. WOODBURY, Lansing, Michigan.

**BERKSHIRES.**—Young boars ready for service at farmers prices. H. W. WIGMAN, Lansing, Michigan.

**Berkshires.**—Ten gilts bred to the wonderful Duke Pontiac Chief, to farrow in April or May. No better breeding. C. S. Bartlett, Pontiac, Mich.

**BERKSHIRES.**—Registered boar pigs, excellent individuals, breeding unsurpassed. Price \$15. C. C. COREY, New Haven, Mich.

**TWO Berkshire Gilts**, sired by Handsome Prince 3. Bred for Aug. farrowing, will sell at \$40 & \$45 also a few spring pigs left. A. A. PATTLUO, Decker, Mich.

**DAMS BROS.**, Litchfield, Mich., breeders of Imp. Chester White and Tamworth sows, service boars, sows bred or open, of either breed. Shorthorn Cattle, Buff Rock, Buff Wyandotte, W. Orpington, Chks. all breeding stock leading winners

**O. I. C. Swine.**—Bred gilts, males, weighing from 150 to 250 lbs. Price and type right. Geo. P. Andrews, Dansville, Ingham Co., Mich.

**O. I. C.**—March pigs with quality and best pedigree. Order now and get first choice. C. J. THOMPSON, Rockford, Michigan.

**O. I. C's For Sale.**—Best quality, large growthy type, either sex, pairs not akin, some fine bred gilts, choice lot of fall pigs all ages. OTTO B. SCHULZE, Nashville, Michigan.

**CHESTER WHITES.**—Sold out but business of raising Chesters and Holstein cattle. Both Phones. W. O. WILSON, Okemos, Mich.

**FOR SALE.**—Three Chester White Boars, right in every way, farrowed Jan. 15th. Dam a Grand Champion and sired by the Victor, winner of nine first prizes. Address BONNIE BRAE FARM, Algonac, Michigan.

**O. I. C's.** Bred sows all sold. 93 choice Mar. & April farrowed pigs either sex pairs not akin. Reg. n buyers name. Fred Nickel, R. No. 1, Monroe, Mich.

**O. I. C. March Pigs and Sows** to farrow H. W. CLARK, R. F. D. 4, Brighton, Michigan.

**O. I. C's.**—All ages, 25 young and 2 yearling sows, safe in pig. Price for a short time \$22 to \$30. H. H. JUMP, Munith, Michigan.

**O. I. C.**—Choice registered pigs 8 to 16 weeks old, from World's Fair. (Phone 94.) Glenwood Stock Farm, Zeeland, Mich.

**O. I. C. Choice Spring Pigs**, either sex. Pairs not get first choice. All pigs shipped on approval and Reg. free. HARRY T. CRANDELL, CASS CITY, MICH.

**O. I. C. SWINE.**—My herd is chiefly descent of the Royal strain both males and females. Get my price before you buy. Will register free of charge in purchaser's name. A. J. GORDEN, R. No. 2, Dorris, Michigan.

**DUROCS.**—Bred Sows and Spring Pigs. Write for prices. A. H. GUISBERT, Gifford, Michigan.

**Duroc Jerseys** For Sale—A few sows bred for pigs both sex. M. A. BRAY, Okemos, Michigan.

**DUROC JERSEYS.**—Bred Gilts and spring pigs for sale. CAREY U. EDMONDS, Hastings, Michigan.

**DUROCS.**—25 Bred Sows, of high quality. 10 Excellent Boars ready for service. 75 Fall Pigs both sex. Write or come and see. J. C. BARNEY, COLDWATER, MICHIGAN.

**PEDIGREED Duroc Pigs** For Sale—About 5 months old, weight about 100 lbs. Express charges prepaid. Give us an order. HAWKS & HAWKS, Goshen, Ind.

**LARGE TYPE P. C.** Largest in Mich. Sept. & Oct. pigs weigh 250 to 300 lbs. Sired by two largest boars and from largest sows in State. Come and see and be convinced. W. E. Livingston, Parma, Mich.

**Bargains.**—P. C. Boars ready for service, fall boar pigs. Prize winning African & Embden Geese. Z. KINNE, Three Oaks, Mich.

**POLAND-CHINAS.**—Booking orders for spring pigs. WOOD & SONS, Salline, Michigan.

**Spring Pigs** either sex. Fall sows. L. W. Barnes & Son, Byron, Shiawassee Co., Mich.

**I PAY THE EXPRESS ON DUROC JERSEY** Pigs. JOHN H. BANGHART, Lansing, Michigan.

**Three Extra Good Fall P. C. Boars**

By Next In Line. 32 spring male pigs ready to ship. I ship C. O. D. and furnish pedigree promptly. If you want good as the best, write me for prices.

**WM. WAFFLE, Coldwater, Michigan.**

**Butler's Famous Wonders.**—The big Poland-China, without a peer, combining, size, bone, quality. We're headquarters for everything in Poland-Chinas. Herd boars, brood sows, weanling pigs, always for sale. Registered Jersey Bulls of all ages for sale, our prices are low. J. C. Butler, Portland, Mich. Bell Phone.

**BIG TYPE POLAND CHINA BOARS**, also fall and early spring pigs. B. P. ROCK eggs \$1.00 per 15. ROBERT NEVE, Pierson, Michigan.

**FOR SALE PURE BRED YORKSHIRE PIGS.** Both sexes. Price reasonable. MURRAY-WATERMAN CO., ANN ARBOR, MICH.

**Lillie Farmstead Yorkshires.**—Holywell Oak Lodge blood predominates. Large Herd. Three service boars. Pairs and trios, not akin. Boars ready for service. A fine lot of spring pigs. Gilts bred for August farrow. The best hog on earth. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich.



## POULTRY AND BEES

CO-OPERATING FOR BETTER PRICES.

Six years ago I bought my first lot of eggs for hatching. The neighbors were very solicitous regarding my foolish venture, as I paid four times as much for the eggs as what I could sell for at home, and the express cost one-fourth as much more. But I hatched out 74 little beauties, and raised 65 of them, losing none save from accidents.

Of these 65, 37 were big, lusty cockerels, so I thought I would furnish the entire community with good breeding stock, and offered them for sale at fifty cents each, though they had cost me ten cents each when hatched. The neighbors came and admired them, but only a few had the "nerve" to invest in pure-bred fowls at that price, though any number of them were very anxious to "swap" scrubs for choice Plymouth Rocks.

As I was buying feed all the time, I was forced to sell, and on August 5 I took them to town, where I received 8c per lb. for 31 of them, their total weight being 83 lbs. The poultry buyer paid me just the same price per pound for my pure-bred, scientifically-fed, yellow-skinned chickens as he was paying Dick, Tom and Harry for their multi-colored, scrawny, half-starved scrubs, and this set me to thinking. The question arose in my mind as to whether he sold them in the same manner that he bought them, i. e., at one price for all. I learned that he was careful to sort and grade them when cooping for shipment, but I failed to learn how much more he received per pound for "quality" chickens like mine than he received for the other sort.

There must be other poultry breeders who have had similar experience, for an organization has been launched under the name of the International Utility Poultry Association whose object is to effect a change along this line. It aims to produce better poultry, secure a better distribution of the utility poultry products, and stimulate the demand for the products of its members. It will establish laying contests under proper management, award prizes to members for the best and most economical methods of packing and marketing poultry, and will furnish a standard package, or carrier, for the use of members.

Had we had such an organization, with a large and active membership, when I first started in the poultry business, I should have been able to sell my pure-bred cockerels for a fair price direct to the consumer. As soon as I learned of this association I became a member. We hope to begin an active campaign in the near future to secure a utility standard, and everyone who has pure-bred poultry, but not of the fancy or show kind, should work for the adoption of such a standard. My flock of Barred Rocks were all handsome, large and of reasonably uniform shape and color, but I fear that only a small per cent of them would have measured up to the requirements of the present Standard of Perfection. A friend of mine who now raises fowls that win first prizes against hot competition, tells me that his first pure-bred fowls looked so good to him that he decided to enter them at a near-by poultry show, although he had never seen a copy of the Standard of Perfection. Imagine his state of mind when he found that every one was disqualified. So let us work for a utility standard.

Missouri.

ANNIE HOFFARTH.

### IN ANSWER TO INQUIRIES.

#### Preserving Eggs.

Mrs. G. R. S., Cheboygan Co.: The waterglass method of preserving eggs was described in our issue of May 20. As stated at that time, waterglass, otherwise known as sodium silicate, has proven the most satisfactory material in which to pack eggs. It is a liquid which may be obtained at almost any drug store and is comparatively inexpensive. Prepare a jar of the preservative according to directions given in the article above referred to and place the eggs in it as fast as they are gathered, remembering that it is useless to put down eggs that are not absolutely fresh, also that they lose their freshness quickly at this season of the year. The cold storage people do not consider it safe to place July and August eggs in storage for the reason that they are subjected to too much heat while in transit from the farm to the

storage house, but there is no reason why the producer should not be able to place his eggs in the home-made preservative within 24 hours after they are laid, and such eggs will prove as satisfactory for next winter's use as those stored in April and May.

#### Ants in Bee Hives.

Mrs. L. B., Genesee Co.: The small ants which you say infest your hives will probably not do any harm in the long run. It was formerly supposed that ants robbed the hive of honey but close students of bee culture now contend that it is the warmth of the cluster that attracts them to the hives rather than the honey. It is also claimed that they seldom gain much of a foothold in the home of a strong colony. It is believed that weak colonies, if allowed to remain weak, sometimes desert their hives because of ants. On the other hand, it has been demonstrated that such colonies can be built up to the point where they will drive the ants out, and most apiarists now concede that a strong colony has nothing to fear from ants.

But the owner can, and should, lessen the chances of getting ants into his hives by holding them in check in the bee yard. If the apiary is free from nests of the insects there will be no trouble. To help the bees rid themselves of these pests, war should therefore be made on every nest that now exists in the vicinity of the hives. To destroy a nest without killing the grass which covers it, make three or four holes in the nest with a sharp stick, pour into each a little bisulphide of carbon and plug the holes with earth. If the nest is not a large one it can be destroyed by using kerosene in the same manner. The kerosene is less likely to injure the grass than is the bisulphide and is safer, the latter being highly inflammable and therefore requiring considerable care in handling.

#### THE NEWLY HIVED SWARM.

It is important that the newly hived swarm be kept comfortable. Let there be plenty of room for ventilation below, and let the hive be partly uncovered for two or three days. Do not set the hive right out in the broiling sun with nothing to shade it. Many practice giving a frame of brood, the idea being that the bees will not be willing to desert this. The entrance must be made sufficiently large that the workers may go in and out at ease. The hot rays of the sun must be warded off. Too many drones are also a cause of swarming. Perhaps, in instances, they helped to make the bees uncomfortable. In most cases, however, with the large hives, the swarming is due to delay in putting on the supers. Men in business, for whom bee-keeping is only a pastime, may often overlook the fact that their hives are getting well filled, and that a nectar crop is about to open. When it has begun, and they discover it, it is often too late, for the bees have already made preparation for the exodus of their surplus army, and no amount of manipulation will then change their decision. It is true that, sometimes, with all these preparations carefully taken, a colony will cost one or more swarms. We do not know how this may be helped, but after years of experience on this subject I feel safe in asserting that a large per cent of the swarming may be prevented if supers with empty combs are furnished.

In a state of nature the bees of a swarm go into an empty cavity and build, first, all worker comb, and, towards the last, drone-combs. I believe that the queen pretends to lay eggs in worker combs, and that the bees build the worker comb to please her. But when they are so far ahead of her as to see that she has all she can fill, they go back to the cheapest way of building, which is building with large cells. For this reason I do not believe in giving the bees part of their combs already built, as some do—half sheets or one-third sheets of foundation. Give them full sheets or only starters. If you give them full sheets they cannot build drone comb. If you give them only starters, they feel the need of worker comb and will build mostly that kind.

New Jersey. F. G. HERMAN.

Moliere. Les Femmes Savantes. Edited by Charles A. Eggert, Ph. D., formerly Professor of French, Illinois Wesleyan University. In this edition of Moliere's entertaining comedy, the notes give special attention to peculiarities in language and style, and to the explanation of allusions in the text. Cloth, 16mo, 187 pages, with notes and vocabulary. Price, 40 cents. American Book Company, Chicago.



## Civilization—from Signal Fire to Telephone

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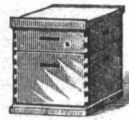
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## THE DAIRY

CONDUCTED BY COLON C. LALLIE.

### ARE THESE GOOD COWS?

There is a great deal being said about good cows, but what is a good cow? How much milk ought she to give, and how much butter ought she to make? We are milking three cows, but we are greenhorns at farming, so we tested our cows three days. The following is the record for three days: We kept the milk of each cow separate, and churned the cream separate. One cow, eight years old, fresh the first day of January, gave 77 lbs. of milk, 8 lbs. 12 ozs. of cream, 3 lbs. 7 ozs. of butter; took 25 minutes to churn. One cow eight years old, fresh February 10, gave 94 lbs. 12 ozs. of milk, 9 lbs. 12 ozs. of cream, 4 lbs. 1 oz. butter; took 12 minutes to churn. One cow three years old, fresh April 23, gave 91 lbs. 12 ozs. milk, 9 lbs. 3 ozs. cream, 3 lbs. 3 ozs. of butter; took 40 minutes to churn. The time chosen to make the test proved a poor one, for those big rains came, raised the creek, and overflowed the pasture badly, and we do not feed. I do not know what you mean by the term "grade" cows, but guessing at the meaning, these are grade cows for they are just cows. Are they good ones?

Mecosta Co. A. H. W.

These are only fairly good, average cows. A cow that will produce a pound of butter-fat a day on pasture alone, and especially when she came in last fall or in the middle of the winter, is a fairly good cow, and a profitable cow. One can afford to keep her, but, of course, she is not of the best. It is well known that many cows give more than twice as much as this and some much more than this; but, of course, these high producing cows are naturally good cows and are given exceptional care. A great many splendid records are being made now by good cows in all the different breeds. A great strife is on and people are trying to see what they can do with their cows and many of them are making phenomenal records. Of course, there are plenty more cows in the country that could make splendid records if they only had the proper care. There is about as much in the care and attention given the cow, to make her produce 500 to 1,000 lbs. of butter-fat, as there is in developing a trotting horse so that he trots a mile in less than 2:40. Any horse, no matter how he is bred, must be trained and educated in order to do this. And so a cow that produces 500 to 1,000 lbs. of butter in a year must have exceptional advantages. She will not do it with ordinary herd care. She must be in the hands of a good, competent herdsman and properly fed and properly cared for. Many of these cows that are making these phenomenal records are milked three and four times a day. With the average farmer and the average cow this would not be considered practical or profitable. So a man who has cows that will produce for him, on pasture alone, with ordinary care, from 1 lb. to 1½ lbs. of butter-fat in a day may consider that he has good, practical, profitable cows. And while he should strive to get better ones, either by breeding up his herd with pure-bred sires or by going out and purchasing better cows, still he should stick to these cows and make the best of them. By giving them better care and more attention they can undoubtedly be made much more profitable than they are at the present time. But where you have cows that will do what yours have done do not discard them until you know by actual test, extending over a period of time, that you have something better.

### IMPROVING DAIRY HERDS.

The dairy division of the department of agriculture is engaged in a valuable and important work for the dairy industry of the country, effecting a financial saving of many thousands of dollars annually.

The average production of dairy cows in this country is far below what it should be, and there is no doubt that by systematic work in keeping records of individual cows, eliminating unprofitable ones, improving the quality of dairy stock, and the introduction of better and incidentally cleaner methods, the average yield of the dairy cows in the country can be enormously increased. One important agency in the dairy division has been active in promoting the formation of these associations. The keeping of records of dairy cows is advocated not only for the purpose of determining the value of each cow as a milk producer, but in order that the calves of the best cows may be kept and reared, as otherwise many animals that would be of great value in the dairy would be lost.

For more than four years the dairy division has carried on in co-operation with state authorities work for the development and improvement of the dairy industry. In 1909, dairy farmers were advised to keep records of their herds so as to show the cost of feed, the yield of each cow, etc. Records were kept of 73 herds, containing 1,642 cows. The value of keeping these records was demonstrated by the fact that 138 cows were removed from the herds because their records showed them to be unprofitable.

Here is an object lesson that means much. More than eight per cent of the cows recorded were unprofitable. There are in the United States nearly 23,000,000 cows and if the same ratio of "boarders" obtains elsewhere it may readily be seen that approximately 1,840,000 cows are being kept by their owners at a loss. The unprofitable cows cost just as much, if not more, to feed as the profitable ones. While it will be readily agreed that the cow that "eats her head off" should at once go to the block, how is the determination to be reached that she is a loser without a cost keeping system? There has been no more striking evidence of the need of farm book-keeping than the result of this work of the dairy division.

### HOLSTEIN BREEDERS' ANNUAL MEETING.

With members present representing 20 different states and with the largest personal attendance in the history of the organization, the 26th annual meeting of the Holstein-Friesian Association of America was called to order at Syracuse, N. Y., on Wednesday, June 7, by Charles W. Wood, of Massachusetts, president. His address was an able one, broad and inspiring in its conceptions of the purposes, duties and privileges of the association. He reviewed the work of the past year, paid tribute to the character of the membership, issued a warning or two and offered good counsel.

Accessions to the membership to the number of 34 were made at this meeting, and others which have been made since the close of the fiscal year make a total addition during the year of 955, and a total membership of 4,280.

Article IV, Section 5, of the By-Laws, was amended on motion of E. A. Powell, giving the board of officers authority to increase the fee for registry for cattle over two years old.

The report of the treasurer, Wing R. Smith, of New York, was received with great enthusiasm. It showed a cash balance on hand of \$134,491.38, after payment of expenditures of \$30,013.04. This is a gain over last year of \$30,000.

The report of the superintendent of Advanced Registry, Malcolm H. Gardner, of Wisconsin, showed the acceptance of tests of 4,476 animals during the year, whose average yield of butter-fat was 14.061 lbs. per week—equivalent to 27¼ quarts of milk per day, and 16.4 lbs. of the best commercial butter per week. Yearly tests of 192 cows were reported. The increase in the number of tested cows over last year is 46½ per cent. Thirty states and three Canadian provinces have now taken up advanced registration work.

The leading records for over half the classes of the four prize divisions have been broken during the year, in many of the classes several times. Thirty-five cows and heifers have exceeded the old records.

Three hundred and forty-two animals appear in the prize-lists for the seven-day division, 114 in those of the 30-day division, 80 in the "eight months" division, and 152 in the semi-official division; the total number of animals reported as either winning prizes or debarred under the rules being 688. The lowest of the winners in the full-aged class of the seven-day division produced almost 22 lbs. of butter-fat, the lowest of the 86 junior two-year-olds 14.8 lbs. fat. During the year 43 cows have produced above 24 lbs. fat in seven days. The breed can now claim 86 animals of the 24-lb. rank. The best yearly record was made by Lunde Korndyke 26, 192.7 lbs. milk, 872.73 lbs. fat.

The total entries in the Advanced Registry for the year is 5,094, an increase of nearly 44 per cent over last year.

Secretary F. L. Houghton, of Vermont, reported business far exceeding that of any previous year, totaling \$103,444.20, of which a balance of \$56,397.04 was remitted to the treasurer. A total of 70,590 certificates was issued during the year, and 37,701 transfer certificates.

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You can have a Tubular—The World's Best—delivered and set up in your home, free—for thorough trial—without freight or any other expense to you. Contains no disks. Other separators taken in part payment for Tubulars. Before risking anything on any inferior separator, see how much more the properly built, high quality Tubular will pay you. Write for catalogue No. 152 and free trial.

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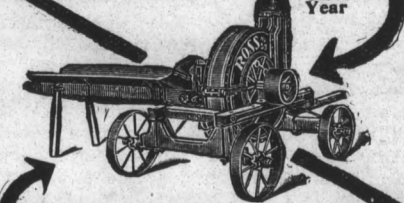
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**SEND \$1** if your dealer can't supply you, for enough Shoo-Fly to protect 200 cows, and our 3-tube gravity sprayer without extra charge. Money back if not satisfactory. Write for Booklet, free. Special terms to agents.  
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The density of the cream from the United States Cream Separator is easily regulated by aid of the patented cream screw. Many users produce cream testing over 60 per cent butter fat.

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If your dealer does not handle Fly Bouncer, send \$1.00 for large sample and special sprayer. Write now for pamphlet and particulars, FREE.

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## BEST GRAIN RATION FOR COWS.

We are shipping milk to a condensing plant. Cows are grade Jerseys and Shorthorns. Give best grain ration and quantity to be fed in connection with corn ensilage, mixed clover and timothy hay and corn fodder. Also state if same grain ration can be used profitably when cows are on pasture.

St. Joseph Co. R. A. W.

There is no food that is suggested for the grain ration and I suppose that I am to use my own good judgment and state exactly what I would consider an ideal ration to be given with corn silage, mixed clover and timothy hay, and corn fodder. My choice for a grain ration is ground peas and oats and cottonseed, or linseed meal, or gluten feed can be substituted for either the cottonseed or the linseed meal if it can be purchased more conveniently. I would mix this grain ration in proportion of two parts of ground peas and oats to one part of the other grain, and then I would feed as many pounds per day to each cow as the cow produced pounds of butter-fat in a week, feeding it in two rations, night and morning, on the corn silage. If R. A. W. has no ground peas and oats, then, as a substitute I would use corn meal and wheat bran mixed in proportion of equal parts by weight and then mix this, two parts of the corn meal and bran, with the gluten feed, oil meal, or cottonseed meal, as the case may be, and feed the same ration. Of course, it is supposed that the cows will have all the corn silage, clover hay, and other roughage that they will eat up clean each day.

The same ration can be fed on pasture, but with good fresh pasture the cows will not need as heavy a grain ration as they will on dry feed because they will consume more of the pasture grass than they will of the other roughage, and consequently will not need so much grain. I should say you could cut down the grain ration about one-half while the pasture is good.

I am feeding my own cows on pasture now, one small feed of silage in the morning and a feed of ground peas and oats; and then at night we feed dried beet pulp, a small feed for each cow, fed in proportion to the number of pounds of butter-fat which she produced in a week the same as the peas and oats in the morning. But we have cut the grain ration down materially from the winter feeding for the reason above mentioned. But as the pasture depreciates we will gradually increase the grain ration and the amount of silage fed and perhaps the last of July or the first of August it will be necessary to feed corn silage twice a day; at the present time we only feed a small feed once a day.

## BUTTER MAKING ON THE FARM.

Butter has been made on my farm for a good many years and, while I will not say that our method is the best, I do claim that we produce a product of first quality for which we always receive the highest market price.

Before the milking begins the sides and udders of the cows are carefully brushed, thus preventing dirt and dust from falling into the milk. The milking is done with clean, dry hands; to milk with wet fingers is an extremely filthy habit. Just as soon as the milk is drawn from the cow it is strained through a wire gauze and three thicknesses of cheese cloth. All the milk utensils are thoroughly cleaned after being used, by first washing them in luke warm water, next in hot water, and then scalding in boiling water. Every dish or cloth that is used in connection with the milk is put in a clean place, where there is a circulation of pure air, after being used.

The cream is separated from the milk with a hand separator and held until there is a sufficient quantity to churn. The churning is done three times each week with a barrel churn. In preparing the churn and butter worker for use, they are thoroughly scalded with boiling water before the cream is put into the churn or the butter on the butterworker. A thorough scalding and cooling of the butter worker prevents the butter from sticking to it.

The cream is strained into the churn through a hair sieve and the churn is never filled more than half full of cream. The churn is not turned very rapidly, and is stopped several times at the beginning to remove the cork, so as to allow the escape of the compressed air. When the cream begins to break, care is exercised not to gather the butter granules into one large lump. The churning ceases when the butter particles are

about the size of wheat kernels. Then the churn is fastened and the buttermilk drawn off.

When the butter is well drained from the buttermilk, it is rinsed with a little water, and after this has drained away the cork is put in the churn and the churn revolved slowly six or eight times; the water is now drawn off and the butter left to drain for about fifteen minutes.

When the butter is well drained it is ready to salt, and this is done in the churn when the butter is in granular form. About one and one-half ounces of salt are used for every pound of butter. This insures the right amount of salt when the butter is finished.

It is a very easy matter to work butter too much and have it greasy. We never work the butter with the hands, because the warmth of the hands will make it greasy and give it a salty appearance. We use the lever worker and press the lever on the surface, and occasionally fold the butter over with a ladle. The lever of the butter worker, or butter paddle, is never allowed to slide over the surface of the butter, but it is pressed straight down when working.

The butter is pressed into square one-pound prints and carefully wrapped with parchment paper which has been soaked in salt water a few minutes before being used. The butter is sold in our local market, except what is used at home, and practically all the milk is fed to the chickens, hogs and calves.

By following the above method in making butter we never fail to produce a product first-class in every respect, which sells for from two to five cents per pound more than most of that offered by others. And I think that if any who have difficulty in making good butter, will follow our method they will find the production of a good article a comparatively simple and easy matter. One of the mistakes made by many is in not churning the cream when it has reached the proper stage of ripeness and at the right temperature.

A proper handling of the milk is a matter of considerable importance. Too often it is drawn from the cow in stables in which the air is filled with dust and put in unclean vessels. Cleanliness in all things and at all times is a feature upon which too much stress cannot be laid in making butter.

Illinois.

W. H. UNDERWOOD.

## KEEP THE FLIES OFF THE COWS.

Have you commenced spraying your cows with dip? If you haven't it is time to get busy. When flies first make their appearance, you should get out your sprayer and as often as necessary give your cattle a good sprinkling of dope. Don't let the cows fight off the flies themselves for it takes from their strength, and this energy, if converted into milk, or butter-fat, would make a handsome little profit for the sum expended for the fly killer. You will find the cows easier to milk, will keep their flesh in better condition, and will hold out their period of lactation better if this little attention is given them night and morning. It only takes a few minutes to spray a herd of ten or a dozen cows, and probably not as long as it does to milk one cow. If you had a dozen cows, rather than to allow your herd to go about the fields all day thrashing flies, running through thickets to brush off the pests, and looking up some shady place to get out of the way of the insects, you had better sell one of the herd, invest a few cents in spraying mixture, buy your wife some needed furniture with the balance, and then spend the time which you devoted to milking the one cow, to spraying the remainder of the herd, you will have more milk at less cost of production, and you will be money ahead, by the little effort and expenditure. You will find materials advertised in The Farmer for spraying cattle, horses and other stock.

WALTER JACK.

Tests showed that the cost of milk was greatest in two-year-old heifers, that it gradually decreased up to four years, after which it remained constant. The gain in milk yield increased five per cent between the ages of two and three years, 18 per cent between the ages of three and four years and 15 per cent between the production at four years and the greatest production.

Breeding cows are in great demand in the leading markets of the country and farmers have been buying thousands of good breeders, paying as high as \$50 per head. Good teeth and good health are the great requisites, the bull being expected to meet further requirements.

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# DE LAVAL CREAM SEPARATOR

The hot weather season is at hand when the Centrifugal Cream Separator saves most in quantity and quality of product over gravity setting systems and when the DE LAVAL Cream Separator saves most in time, labor, quantity and quality of product over other separators.

There can scarcely be a good reason for putting off this all-wise and self-paying purchase on the part of anyone having the milk of even a single cow to separate, and a DE LAVAL machine can be bought either for cash or on such liberal terms that it will actually pay for itself.

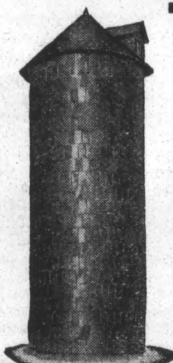
With butter prices rather low the purchase of a DE LAVAL separator becomes ever more desirable, as its use may easily mean the difference between a profit and a loss in summer dairying.

Every local DE LAVAL agent stands ready to demonstrate this, either to the man without a separator or already having an inferior one, and will deem it a favor to be permitted to do so.

If you don't know your local DE LAVAL agent please address the nearest DE LAVAL office, and bear in mind that every day's delay means just so much more dairy waste.

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soon wins against all competition. It makes friends and enthusiastic advocates wherever it is introduced. Being built of PATENTED HOLLOW BLOCKS OF GLAZE DVITRIFIED CLAY, a material that lasts always, it wins immediate favor over the decaying, shrinking, tottering, storm tossed stave silo and being IMPERVIOUS to MOISTURE it keeps the silage perfectly clear up to the wall and is therefore superior to any form of cement. Our silo is not a cement silo. The IMPERISHABLE is strong, needs no paint outside or coating inside. Simply ideal. Ask for our free booklet.

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# The Michigan Farmer

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The Lawrence Pub. Co.,  
Detroit, Mich.

DETROIT, JUNE 24, 1911.

## CURRENT COMMENT.

When the bill to promote reciprocal (?) trade relations with Canada was reported to the senate by the Finance Committee of that body, it was expected that the discussion of the measure pro and con would commence at once and be continued indefinitely. It developed, however, when the measure came up in the senate, sitting as a committee of the whole, through a statement made by Chairman Penrose of the Finance Committee, that few if any of the senators expected to speak in its behalf. It being customary for affirmative arguments to be first presented, the many senators who purpose to present arguments in opposition to the pact were not at the moment prepared to speak, for which reason the discussion of the measure went over for the week. During the brief discussion which brought out the statement from Senator Penrose that the friends of the measure were prepared to vote on it at once, without any debate, Senator Smith, of Michigan, delivered a scathing arraignment of the measure and of the senators who will vote for it but will not come out in the open and champion it on the floor of the senate. He recounted the fact that the measure is analogous to that which was in force with Canada from 1854 and which was rejected as undesirable some ten years later, and called attention to the fact that similar propositions were presented to Grant and Harrison and Blaine, and rejected by these great statesmen as inimical to the welfare of the country, and summarized many strong arguments against it which he declared his intention to present to the senate in detail at a later date. Senator Townsend, of Michigan, announced his intentions at the same session to present amendments to the bill providing that the President shall enter into negotiations with Canada for the purpose of enlarging reciprocal trade with Canada.

One of the early speeches against the measure was made by Senator Nelson, of Minnesota, who questioned the President's constitutional and moral right to promulgate an international agreement by pledging himself in advance to make certain specific recommendations to congress to procure special legislation from congress. Senator Nelson aroused the senate by declaring that it appeared that

the newspapers of the country would not get what they thought they would get under this proposed legislation, i. e., free print paper. He declared that the tariff law of 1909 would still apply and govern as to most of these products of the Canadian forests, and said "That for this scant mess of pottage the great newspapers are willing to sacrifice the American farmer." This precipitated a somewhat general discussion among the senators both for and against the pact as to the meaning of the Root amendment applying to the paper schedule, which discussion brought out the fact that they did not at all agree as to just what effect this amendment would have upon the working of the measure should it be enacted into law.

When the doctors disagree it is conceded to look bad for the patient, though beyond the province of the layman to prophesy the result. But it is a safe assertion that the farmers of the country, who would be so adversely affected by this pact should it be ratified, would not lose any sleep should the great newspapers find themselves balked in attaining the selfish ends which have prompted their strenuous campaign for this pact, and some prominent publishers have been heard to express the fear that such a result might be brought about through a combination of Canadian and American manufacturers of paper should this pact, which is primarily considered to be to their sole interest by many well informed people, be finally ratified.

In a preliminary statement of thirteenth census results, just issued by the Bureau of the Census of the Department of Commerce and Labor, the following comparative statistics relating to general crop production in Michigan during the last decade were presented:

The leading crops in 1909, ranked in the order of valuation, were: Hay and forage, \$36,037,000; corn, \$29,581,000; oats, \$18,506,000; wheat, \$16,587,000; potatoes, \$9,914,000; dry edible beans, \$9,540,000; rye, \$3,938,000; and dry peas, \$1,337,000.

Hay and forage showed an increase of 386,803 acres, or 16.6 per cent, between 1899 and 1909. From 1,245,441 acres in 1879, hay and forage increased to 2,024,736 in 1889; to 2,328,498 in 1899; and again to 2,715,301 in 1909. The total yield in 1909 was 3,632,919 tons, valued at \$36,037,000, over 50 per cent of which was "Timothy and clover mixed." The average yield per acre for all hay and forage was 1.3 tons; the average value per acre, \$13.30.

During the 10 years ending with 1909 corn increased 88,407 acres, or 5.9 per cent. From 1879, when 919,656 acres were harvested, corn rose to 994,597 in 1889; to 1,501,189 in 1899; and again to 1,589,596 in 1909. The total yield in 1909 was 52,906,842 bushels; the average yield per acre, 33 bushels; and the average value per acre, \$18.60.

Oats, during the 1899-1909 decade, increased 409,638 acres, or 40.2 per cent. From 536,187 acres in 1879, oats increased to 1,085,759 in 1889, but dropped to 1,019,438 in 1899, increasing again to 1,429,076 in 1909. The total yield in 1909 was 43,869,502 bushels; the average yield per acre, 31 bushels; the average value per acre, \$12.95.

Wheat in the decade, from 1899 to 1909 decreased 1,123,632 acres, or 58.3 per cent. From 1,822,749 acres in 1879, wheat decreased to 1,501,225 in 1889, but rose to 1,925,769 in 1899, the maximum acreage for the period, only to fall to 802,137 acres in 1909. The aggregate yield in 1909 was 16,025,791 bushels, of which 15,899,301 bushels was winter wheat. The average yield per acre was 20 bushels; the average value per acre, \$20.70.

During the decade prior to 1909 potatoes increased 53,520 acres, or 17.2 per cent. From 1879, when 128,848 acres were harvested, potatoes rose to 198,476 in 1889; to 311,963 in 1899; and again to 365,483 in 1909. The aggregate yield in 1909 was 38,243,828 bushels, as compared to 23,476,444 bushels in 1899. The average yield per acre was 105 bushels; the average value per acre, \$27.10.

Dry edible beans increased from 167,025 acres in 1899 to 398,133 acres in 1909, a gain of 231,108 acres, or 138.4 per cent. The total yield in 1909 was 5,195,055 bushels, as compared to 1,806,413 bushels in 1899. The average yield per acre was 13 bushels; the average value per acre, \$24.

The increase in rye for the 10 years ending with 1909 was 244,245 acres, or 140.3 per cent. From 22,815 acres in 1879, rye rose to 140,754 in 1889, to 174,096 in 1899, and again to 418,341 in 1909. Hence during the period from 1879 to 1909 rye increased more than eighteenfold. The total yield was 5,805,420 bushels, the average yield per acre 14 bushels; the average value per acre, \$9.40.

Barley in the decade from 1899 to 1909 increased 48,100 acres, or 107 per cent. Starting with 54,506 acres in 1879, barley rose to 99,305 in 1889, dropped to 44,965 in 1899, and again rose in 1909 to 93,065. The total yield in 1909 was 2,132,101 bushels; the average yield per acre, 23 bushels; the average value per acre, \$13.10.

The cereals had an aggregate acreage of 4,415,006 acres in 1909, as compared to 4,721,126 acres in 1899, a decrease of 306,120 acres, or 6.5 per cent. This decrease

was due to the decline of 1,123,632 acres in wheat; other cereals showing gains. The average value of cereals per acre in 1909 was \$16, a little above that of hay and forage. Wheat showed the highest average value per acre; buckwheat, the lowest. Of the hay and forage crops, "Timothy and clover mixed" ranked first not only in acreage but also in value. "Timothy alone" ranked second in acreage and value. There were some miscellaneous crops. Most of them were well above the more usual crops in value.

## HAPPENINGS OF THE WEEK.

### National.

The condition of the old battleship Maine now being exposed in the Havana harbor by the pumping of the water from around the hulk, is much worse than anticipated. The bulkheads were crumpled into almost unrecognizable masses. Seven feet of water have been removed from the inside of the cofferdam. The contractors hope to have the water lowered from 18 to 20 feet this week.

The supreme court of Kansas handed down a decision prohibiting three subsidiary companies of the standard oil concern from doing business in that state upon the ground of stifling competition. The court also maintained that one company could not own stock in another, and further, that the product must be sold at the same price all over the state.

Joseph B. Reichmann, formerly president of the Carnegie Trust Company, the bankrupting of which institution precipitated the panic of 1907, is now being tried upon the charge of falsifying the reports of the institution to the state banking department.

The celebration of the 25th anniversary of the wedding of President and Mrs. Taft at the White House at Washington proved a brilliant affair, the crowd was large, the weather fine and the gifts were many. The reception was held on the grounds about the White House.

The total value of the live stock in Michigan according to the last federal census, was \$131,746,000, as compared with \$75,997,000 in 1900, or a gain of 73.4 per cent. The value of poultry in 1910 was \$5,611,000 as compared with \$2,686,000 in 1900, or a gain of 108.9 per cent. Of bees there was in 1910, \$446,500 as compared with \$352,500 in 1900, making a gain of 26.7 per cent.

The vote taken by the citizens of Lansing upon the question of changing the form of the city charter to provide for a commission plan of government, was lost by a large majority on Monday.

Twelve persons were injured in a panic on the electric line between Buffalo and Niagara Falls, Monday.

The school gardens of Saginaw have been pronounced the best of any in the state by inspectors.

The United States has officially recognized the republic of Portugal, that country having officially adopted the republican form of government and abolished the monarchial form.

Henry W. Furniss, a negro, and United States minister to Hayti, has submitted his resignation, but owing to the important questions pending as to boundary lines and other matters, the government desires further services and refused to accept his resignation. Mr. Furniss wishes to continue his law practice.

The city of Kalamazoo has perfected plans for the construction of a \$100,000 Y. M. C. A. building.

J. Proctor Knott, the famous Kentucky statesman, died at Lebanon of that state, Sunday. He was 82 years old.

Three girls perished by the capsizing of a canoe on Spring Brook, a branch of the Grand River, Sunday.

The expenditure of \$845,184 by the government for the prosecution of trust cases is a matter demanding investigation, according to certain southern congressmen.

Five students of the University of Michigan will go to Arabia to establish a medical mission at Busrah.

The iron and steel trade for the present fiscal year promises to be the largest in the history of the country, as the last available report shows the dealings of the first ten months of the year to be \$190,000,000, against the record of 184,000,000 for the whole year of 1908.

A jury in the supreme court of Georgia awarded to the owner of the famous hog "Premier Longfellow's Rival," damages to the amount of \$10,000 against a railroad upon whose line the animal was killed in an accident.

### Foreign.

The Cuban house of representatives passed a measure last week excluding instruction in the English language from the schools of the island.

The imperial conference in session at London agreed upon a resolution providing for a government-owned cable connecting England with Canada, thus completing connections with all the colonies.

The new government of Mexico appears to be having its trouble in gaining control of political affairs. Lawlessness in many parts of the country makes the work of organizing political machinery under the new regime, difficult. Dissatisfied rebels, or followers of Ex-President Diaz, are constantly inciting riots. The government is planning to oust certain foreign concerns that were given special privileges and hand over the business to companies sympathizing with the present ruling party. English and American capitalists will suffer considerably by the carrying out of this policy.

A new treaty of commerce has been signed by Norway and Japan. The monarchists of Portugal are revolting against the present government. At the recent elections the republicans were unanimously victorious, and since the

revolters have been preparing to make a stand against the party in power. The garrison at Chavis has mutinied, the commandant was killed and refugees are fleeing to Spain.

What seems to be a systematic policy of expansion is evidently being carried out now by Japan. The Tokio officials are directing that a certain number of Japanese be sent to the Philippines each day and a colony is soon to be sent to Brazil, South America, which is but the first of many to follow.

Ceremonies connected with the coronation of England's king are going forward, regardless of the inclement weather prevailing. The program is the most elaborate ever presented at such a function.

Three aviators were killed and five injured in accidents occurring in connection with the race from Paris to London with various stops enroute. Bursting gasoline tanks spread fire while aviators were in air and resulted in death of two, while the third was killed by crashing into a tree.

## CROP AND MARKET NOTES.

Genesee Co., June 17.—It is now two weeks since the big storm which did so much damage and crops not totally destroyed are coming on nicely. Outside the affected district all save old meadows are reported looking well. Corn not quite so far advanced as usual, owing to abnormally low temperature for June. Although we have had some extremely hot days, low temperature has been frequent and rains frequent. Old potatoes, where not previously disposed of, are now making good, quotations being 75c to \$1 per bu. Planting for the late crop now under way. Local quotations follow: Wheat, 82c; corn, 58c; oats, 37c; beans, \$1.75; baled hay, \$16@18 per ton; eggs, 16c; creamery butter, 24c; live chickens, 12½c. Farmers too busy to do much marketing.

Gratiot Co., June 14.—Cultivating is the order of business. Corn, beans and beets are at all stages. Much corn is barely large enough to work, while some fields are nearly or quite knee high. Some beans are being cultivated, some are just up, some just drilled and some yet to drill. Beets are behind the season from a lack of help and an excess of rain which delayed the work of thinning. Wheat is exceptionally good through central and southern Gratiot, but lighter north, as are both oats and grass. Clover haying will begin by the 25th of June in some sections. Strawberries have been abundant. Cherries not a heavy picking. Apples promise fair. Butter and eggs very low.

Washtenaw Co., June 17.—Conditions as regards moisture have entirely changed. Indeed, some storms have been most severe and disastrous, uprooting fruit and forest trees and blowing down silos and some small buildings, but all crops are looking remarkably well, wheat especially so. Hay prospects good. Old hay now \$20 in local market. Dairy industry much depressed. Small demand for cows; butter-fat 22c; eggs, 12c.

Ogemaw Co., June 17.—The almost continuous rains we had during the last half of May and the first two weeks of June retarded planting greatly in this county. What oats were planted, however, are looking good, with few exceptions. Peas are growing nicely and promise an average crop. A great deal of corn was planted late but is coming nicely, most of it having received one cultivation by this time. Butter and egg prices have been low, causing much grumbling. Butter brings 14c, while eggs are only 12c. Old potatoes are plentiful at 30@40c. The hay crop will be above the average this year, and pasture now is the best. Probably more than a thousand acres of new land has been broken up in Ogemaw county this year, the most of it being put into peas. Late potatoes are not all in yet and the acreage this year will be above the average.

Mecosta Co., June 15.—The month has been generally rainy, with much thunder and wind. Crops look well; most of the corn has been cultivated twice and is being gone over the third time. Potatoes are all planted and some are being cultivated already. The bugs are quite plentiful. About the same acreage planted as in other years. There will be but few apples; the cherries are a short crop. Plums and peaches point to a good crop. The old potatoes are nearly all out of the country. Price 55c. Butter, 16c; butter-fat, 20c; eggs, 12c.

### Indiana.

Steuben Co., June 19.—The month of May was so very dry and hot that plowing was greatly delayed and a few fields were not plowed that would have been planted to corn if weather conditions had been more favorable. The cutworms were very destructive to the early planting and a good many fields were planted over. Clover hay making has just commenced and we will have less than half a normal crop, but timothy will do somewhat better. A good many farmers are sowing millet or drilling corn to help out the hay crop. Wheat is very poor and is just alive with the fly. Oats bid fair for a good crop but are heading with very short straw. The prospects for fruit of all kinds are unusually good. Nearly everyone wants to sell sheep, but buyers are very scarce for anything not in shape to ship. There are also more horses offered for sale now than earlier but the prices asked are not much lower. We had a very good crop of spring pigs and they are doing well but farmers have not bred for more than half the average number of fall pigs. Prices are: Corn, 60@65c; wheat, 81c; oats, 35c; butter, 15c; eggs, 12c; wool, 20c; hogs, live, 5½c; horses, \$250 down and cows from \$60 down. But very few farms are changing hands. The price is near \$75 or \$100 per acre.



## FARMERS' CLUBS

Address all communications relative to the organization of new Clubs to Mrs. C. P. Johnson, Metamora, Mich.

### Associational Motto.—

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

### Associational Sentiment.—

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

### MIDSUMMER PICNICS.

Many of the local Clubs will hold mid-summer picnics this year as usual. This very good custom has been growing of recent years, and nothing stimulates it more than the announcement in advance of the dates of such picnics. This also gives interested Club members from other sections the opportunity of attending them if they desire. For these reasons we hope that the corresponding secretary of every Club which is to have a summer picnic will report it for announcement in this department at the earliest possible date.

### WHAT THE LOCAL CLUBS ARE DOING.

The representative of the Riley Club, of Clinton county, at the last meeting of the State Association of Farmers' Clubs, reported in the conference of club workers that this Club takes a vacation of three months in the summer season. The program committee serves for the entire year. A feature of the business enterprise of the Club was the appointment of a committee for the purchase of binder twine for the members. The question box is made an attractive feature of the meetings. This Club is active in the County Association of Farmers' Clubs, which met four times last year, twice at Merle Beach and twice at St. Johns. The Club made an exhibit at the county fair.

The delegate from the Central Farmers' Club, of Ionia county, stated that the membership is drawn from four counties. The Club holds six meetings a year and has a membership of 50. Serving tables and lapboards are used.

Mrs. Black, representing the Riverside Club, of Shiawassee county, stated that the menu served at the Club dinners was limited, this feature of the meetings being described in an interesting manner.

The delegate from the West Haven Club, of Shiawassee county, reported the membership of that Club to be composed of 17 or 18 families. This Club holds 11 meetings during the year.

The representative of the Burton Club, of Shiawassee county, stated that the questions for discussion in that organization were handed out by a committee the week previous to the meetings. This Club holds 11 meetings each year, with an average attendance of 35 for the last fiscal year.

The Lebanon Club, of Clinton county, holds nine meetings each year with a good attendance. The delegate reported the Club in good condition.

Sand Beach Club, of Huron county, holds 12 meetings each year, seven in the country and five in the town. A special feature of the programs occurs in July, which meeting is made a children's day affair.

Mr. Smith, representing the Salem Club, of Washtenaw county, said that interesting the young people in the work of the Club had been a problem which was in a fair way for successful solution as the young ladies show considerable interest in the meetings.

The delegate from the Spring Arbor Club, Jackson county, reported the Club Fair, which had been made a feature for three years, to have been a great success. The fair is held in the town hall and the proceeds were given to the Old Ladies Home in Jackson. The young people are interested in the work of the Club by putting them on the program.

The Hamburg and Putnam Club, of Livingston county, reported through its delegate that 10 meetings are held each year, with an annual picnic in July. The question box is an interesting feature of the monthly meetings. Committees are appointed for three months.

The Indianfields' Club, of Tuscola county, makes a feature of an exhibit at the county fair, which the delegate mentioned as a profitable move for any local Club.

The Groveland Club, of Oakland coun-

ty, was represented by Miss Alice Thayer, who stated that a vigorous campaign had been carried on for a renewal of interest in the Club work during the past year. The meetings are held monthly at the homes of the members, with an average attendance of from 35 to 75. The members entertain in alphabetical order.

### CLUB DISCUSSIONS.

**Passes Third Resolution Against Reciprocity.**—The Hadley and Elba Farmers' Club was delightfully entertained at the Baptist parsonage by Mr. and Mrs. McLeod, May 18. In the absence of the president, F. A. Smith presided over the meeting. The roll call was responded to by "Names of Native Birds," and followed by a reading by Mrs. Nellie Phelps, Minnie Burlingham and Mrs. J. W. Tower led in the discussion of "What do we gain by worrying?" For the third time the Club put itself on record as opposed to the pending reciprocity treaty. A committee was appointed to take charge of the Children's Day program at our next meeting, June 15, at The Maples, with Mr. and Mrs. H. P. Kelley.—Mrs. C. P. Johnson, Cor. Sec.

**Discuss Reciprocity Pact.**—The Wixom Farmers' Club was entertained June 14, by Mr. and Mrs. E. M. Moore, at their pleasant farm home. It was a perfect June day and a large company of Club members, with visitors from Milford, Highland and Pontiac, were in attendance and partook of a bountiful dinner. The program was the next in order. The Reciprocity Pact was the subject discussed by different members. H. E. Moore, of Orchard Lake, gave a very interesting and practical talk on the question. The Club voted to send the following resolution to Hon. S. W. Smith: The Wixom Farmers' Club, of Oakland county, Mich., hereby tenders its heartiest thanks to Hon. S. W. Smith, congressman from this (sixth) district, for his vote and efforts against the reciprocity pact, and respectfully ask him to convey this sentiment to President Taft, with the further suggestion that the farmers of Michigan are intelligent enough to know what they consider for their best interests, and represent the reflection cast by the President in saying this sentiment against the pact had been "created by the interests."—Mrs. R. D. Stephens, Cor. Sec.

## GRANGE

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

### THE JULY PROGRAMS.

#### Suggestions for First Meeting.

"Education is to know for the sake of living not to live for the sake of knowing."

Instrumental music.

What shall we do with and for small rural schools?

General discussion.

Recitation.

Is there adequate provision made for farm children's play—1. At home? 2. At school?

Appointment of committee to visit schools (to report in October).

Some reliable disinfectants.

Sunny Hits, by three men and three women.

Reading, "A Prayer for a Country Community," by Chaplain.

Closing song.

### HOME IMPROVEMENT GIVEN ATTENTION BY WESTERN POMONA.

Western Pomona Grange No. 19, met with Ottawa Grange, at Herrington, Friday, June 16. In spite of pressing farm work which prevented many from coming, there was a fair attendance and a good meeting. The thoughts of all present were with Sister Thomas Wilde, who has been ill for months yet had hoped to be able to attend this meeting. Before the meeting convened, the news came that our dear sister had passed away. How strange, yet how appropriate, that this meeting of her beloved brothers and sisters, with her own home Grange, should, as it were, commemorate her reception into the great Grange above. Those of us who knew Sister Wilde, know how devoted she has ever been to the Grange and its teachings, and felt we could pay her no better tribute than to take hold of the work before us and do our part with a will.

The program was opened with the song, "The River of Time," by the Grange. The roll call in answer to the question, "What 'One Improvement' will you try to make in the farm or the home during the present season?" proved that we are on the road to progress. Among the things mentioned were: Securing a good crop of alfalfa; finding ways of getting rid of hard work; using a vacuum cleaner; improving the appearance of the back yard; clearing the front lawn of shrubbery; raising good late potatoes; providing a satisfactory drain near the kitchen door for waste water.

The topic, "How to do away with rubbish along the roadside," brought out some practical ideas. Each farmer should care for his own rubbish, burning all that will burn and burying the rest; do not establish a public dumping ground anywhere along your farm by starting it yourself. It sets a bad example and others are apt to add to it. Interest

school children in gathering seeds, such as milkweed pods, destroying weeds along roadsides, helping to dispose of tin cans, etc. The township board may pass a law forbidding the dumping of rubbish along the roadside, and the board of health can then take the matter in hand, as has been done in Walker township.

"Why is it as essential that girls be taught to be wage-spenders as that boys be taught to become wage-earners?" developed a spirited discussion and brought out many good points. A paper on "Boys' Hood Days" concluded the afternoon program.

Owing to the busy season it was decided to hold a short business session just before the public evening session and make this a one-day instead of a two-day meeting, as planned. The evening program proved very enjoyable. Songs and recitations were furnished by members of Ottawa Grange with credit to themselves and pleasure to all present.

A splendid talk on "The Home Grounds," with suggestions on landscape gardening, was given by a sister, formerly a student of M. A. C. She described the "ideal grounds," beginning with the bare site, first placing the house well back from the road, with unbroken green in front and a background of trees with shrubbery at sides to give a semi-circular effect. Recommended avoiding useless curves in walks and drives and reserving back yard for favorite plants and shrubs which detract from appearance of front yard, placing low-growing shrubs and perennials in front of higher shrubs, thus using the latter as a background. The home grounds should be thought of as a picture and must suggest hospitality.

Mrs. Dora Stockman, of Lansing, gave an excellent address in which she spoke of the immigration problem, but emphasized the more vital problem of the emigration of our boys and girls from the farm homes to the cities and villages for employment. She gave incidents which showed all too plainly the need of more thorough home training of our girls. Sister Stockman's address was well received and she made many friends on this her first visit to our county.

The program closed with a little play delightfully presented by the young people of Ottawa Grange, proving that they, with their lecturer, are workers, that they "do things" as well as "know things."—Myrtle B. Brown, Lect.

### Charlevoix Pomona to Erect a Grange Building for County Fair.

A very successful meeting of Charlevoix County Pomona Grange was held with Marion Centre Grange, Friday and Saturday, June 9 and 10. Although the state speakers advertised were not present, the program was carried out without a hitch. Bro. Bramble, of Lenawee Co., who spoke in State Master Hull's stead, gave some very practical and forceful talks, the three principal topics being, "Education," "Canadian Reciprocity," and "Co-operation." The discussion on "Canadian Reciprocity" indicated strong opposition to the treaty among the Patrons present. On the second day, Judge Frederick H. Mayne, H. H. Milford, W. E. Hampton, and others, delivered very forceful addresses on the topics assigned them. Several new ideas were presented on questions of vital importance to every citizen, and it is to be regretted that more citizens did not avail themselves of the opportunity to attend.

"The County Fair and its Contemplated Improvements" was discussed in an interesting manner by Bro. E. B. Ward. It was decided to build a Grange hall on the fair grounds, upon a site donated by the fair association. H. L. Olney, E. B. Ward and Peter Knudsen were appointed to supervise the work. This important step will provide a building, equipped for the comfort and convenience of Patrons visiting the fair, and the several Granges, as well as individual members, will be invited to contribute to a fund for its erection.

Marion Centre Grange possesses one of the finest Grange halls in Charlevoix county and the visiting Granges thoroughly enjoyed its comfort and convenience. Fifteen applicants were initiated in the mysteries of the fifth degree by Marion Centre degree team. Ironton Grange was declared the banner Grange of the county for the first quarter of 1911. The next meeting of Pomona will be held with Boyne River Grange, Thursday, Aug. 10.—R. W. Brintnall, Sec.

Cass County Pomona met with Horseshoe Grange, one of the recently organized Granges of that county, Saturday, June 3. This Grange should be named Patriotic Grange since it is the first one to float the Stars and Stripes from a flag pole in front of the Grange hall, i. e., so far as I have observed. Cass County Pomona is one of the best in Michigan. Its officers and members are alive to the interests of the rural folk. It was royally entertained by the members of Horseshoe Grange, Milo Cook, Fred Brady, J. W. Springsteen, Mrs. Jesse Green, Samuel Thompson, D. E. McClure, and F. B. Wells taking part in the program. A. A. Martin also proved himself a live wire in Cass County Grange matters.—D. E. McClure.

### COMING EVENTS.

#### Pomona Meetings.

Lenawee Co., with Gorman Grange Thursday, Aug. 3. Annual Grange rally. Gratiot Co., with Arcadia Grange, Saturday, Aug. 5. Miss Jennie Buell, state speaker.

Charlevoix Co., with Boyne River Grange, Thursday, Aug. 10.

Kent Co. farmers' annual picnic, at John Ball park, Wednesday, Aug. 16. Former State Master Horton, state speaker.

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"You will doubtless understand how the suffering from indigestion with which I used to be troubled made my work an almost unendurable burden; and why it was that after my Sabbath duties had been performed, sleep was a stranger to my pillow till nearly daylight.

"I had to be very careful as to what I ate, and even with all my care I experienced poignant physical distress after meals, and my food never satisfied me.

"Since I began to use Grape-Nuts the benefits I have derived from it are very definite. I no longer suffer from indigestion, and I began to improve from the time Grape-Nuts appeared on our table.

"I find that by eating a dish of this food after my Sabbath work is done, (and I always do so now) my nerves are quieted and rest and refreshing sleep are ensured me.

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## MARKETS

## DETROIT WHOLESALE MARKETS.

June 21, 1911.  
Grains and Seeds.

**Wheat.**—Weather conditions have been the influencing factor of the wheat market this past week. Rains the latter part of last week gave the bears confidence that the prospects of an abnormal crop would be realized, but a hot wave beginning Sunday damaged the South Dakota fields and others in adjacent states to an extent that enabled the bulls to advance prices fully three cents. The spring wheat crop is suffering considerably from the heat, and should the condition continue the crop will rapidly depreciate. Foreign news was a little bearish. Liverpool has advanced quotations. World's visible supply decreased over five million bushels. The flour market is slow and dull. One year ago the price paid for No. 2 red wheat was \$1.07 per bu. Quotations for the past week are:

	No. 2	No. 1	Red.	White.	July.	Sept.
Thursday	87	86	87	88 1/4		
Friday	87	86	87	88 1/4		
Saturday	86 1/4	85 1/4	86 1/4	87 3/4		
Monday	88	87	88	89 1/2		
Tuesday	89 1/2	88 1/2	89 1/2	91		
Wednesday	89 1/2	88 1/2	89 1/2	91 1/4		

**Corn.**—Corn prices were advanced by the dry weather, which is threatening the crop in Iowa, South Dakota, northern Illinois and other smaller sections. The hay and oat crop have already suffered much damage and dealers are now taking corn liberally for fear that the new crop will be inadequate to meet the demands of the coming season. This attitude hindered corn from taking so large a slump as was accorded wheat last week. At Chicago on Tuesday the buying was so active that offerings were gobbled up as quickly as made, giving no chance for hesitating bidders to get in. One year ago the price for No. 3 corn was 63 1/2¢ per bu. Quotations for the past week are:

	No. 3	No. 3
	Corn.	Yellow.
Thursday	56	58
Friday	56	58
Saturday	55 1/4	57 1/4
Monday	56	58
Tuesday	57	59
Wednesday	57 1/2	59 1/2

**Oats.**—There has been an uninterrupted advance in oat values the past couple of weeks with the market growing stronger each day owing to the condition of the new crop. It is a general belief that the most favorable weather from now till harvest time could not redeem the crop of its present discouraging outlook. One year ago the price for standard oats was 42 1/2¢ per bu. Quotations for the past week are:

	Standard	No. 3
		White.
Thursday	40 1/2	40
Friday	40 1/2	40
Saturday	40 1/2	40
Monday	40 1/2	40
Tuesday	41 1/2	41
Wednesday	43 1/2	43

**Beans.**—The activity in bean circles has lifted prices to a higher level, but the advance has not stopped buying which encourages those who still have their crop, to believe that the present basis of dealing will be maintained. Following are the quotations for the week:

	Cash.	Oct.
Thursday	\$1.95	\$1.97
Friday	2.00	2.00
Saturday	2.05	2.00
Monday	2.10	2.00
Tuesday	2.10	2.10
Wednesday	2.20	2.10

**Clover Seed.**—There is no interest taken in this market and the quotations below are merely nominal:

	Prime.	Oct.	Alsike.
Thursday	\$9.25	\$8.35	\$9.00
Friday	9.25	8.35	9.00
Saturday	9.25	8.35	9.00
Monday	9.25	8.35	9.00
Tuesday	9.25	8.35	9.00
Wednesday	9.25	8.35	9.00

**Timothy Seed.**—The nominal price of a week ago is still published by the board. No business is being done. Quotation for prime spot is \$5.60 per bu.

**Flour, Feed, Provisions, Etc.**  
Flour.—Market is slow with prices steady. Quotations are:

Clear	\$4.75
Straight	4.65
Patent Michigan	4.90
Ordinary Patent	4.90

**Hay and Straw.**—Market steady at last week's advanced prices. Quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$23@23.50; No. 2 timothy, \$22@22.50; clover, mixed, \$20@22.50; rye straw, \$7.50; wheat and oats straw, \$6.50 per ton.

**Feed.**—Prices are steady with a week ago. Carlot prices on track are: Bran, \$27 per ton, coarse middlings, \$28; fine middlings, \$28; cracked corn, \$22; coarse corn meal, \$22; corn and oat chop, \$20 per ton.

**Potatoes.**—The revival of interest and the advancement of prices last week are still supported as legitimate upon the ground of failure of the early potato crop which suddenly called upon the old tubers to satisfy the trade. In car lots Michigan potatoes are selling at 70@80¢ per bushel.

**Provisions.**—Family pork, \$17@18; mess pork, \$16.75; medium clear, \$16@17; smoked hams, 15@16¢; briskets, 10 1/2@11 1/2¢; shoulders, 10¢; picnic hams, 9 1/2¢; bacon, 16 1/2@17¢; pure lard in tierces, 9 1/2¢; dairy rendered lard, 10 1/4¢ per lb.

**Dairy and Poultry Products.**  
Butter.—The shortage of grass and the

activity of cold storage men who are now taking butter quite liberally for holding, have raised prices a cent. The main markets of the country participate in the advance. Quotations are: Extra creamery, 23¢; firsts, do., 21¢; dairy, 16¢; packing, 15¢ per lb.

**Eggs.**—Complaints continue to come of the inferior quality of the eggs offered for the trade. There is a good demand for first-class stock. Price rules same as a week ago. Fresh receipts, case count, cases included, are quoted at 13¢ per dozen.

**Poultry.**—There is very little doing in this deal and values rule on last week's basis. Quotations are: Live—Spring chickens, 12@12 1/4¢; hens, 12@12 1/2¢; old roosters, 10¢; turkeys, 14@15¢; geese, 8@9¢; ducks, young, 12@13¢; broilers, 23@24¢ per lb.

**Cheese.**—Michigan, old, 17¢; Michigan, late, 13@14¢. York state, new, 13 1/2@14¢; Swiss domestic block, 16@18¢; cream brick, 13@14¢.

**Veal.**—Market steady. Fancy, 9 1/2¢; choice, 8@9¢ per lb.

**Fruits and Vegetables.**  
Cabbage.—Steady. Selling at \$2.75@3 per crate for new.

**Strawberries.**—Higher. The Michigan grown are \$1@1.25 per 16-qt. crate.

**Pineapples.**—\$3.50@3.75 per case.

**Cherries.**—Sour, \$2.50@2.75 per bu; sweet, \$2.50 per bu.

**Raspberries.**—Red, \$3@3.25 per 24-pint case.

**Huckleberries.**—\$5 per 24-qt. case.

**Gooseberries.**—\$3.50@3.75 per bu.

**Apples.**—Becoming scarce; only a few varieties on the market and very firm. Steel reds, \$6.50@7; Western apples, \$2.75@3 per box.

## OTHER MARKETS.

## Grand Rapids.

The strawberry season is practically over now and cherries are ripe. Early sweets are bringing \$1.50@1.75 per case; sour, \$1.10@1.40. The cherry crop is the largest in years. The potato market is making a strong finish, on account of dry weather in potato growing sections of the south and west and buyers are paying up to 75¢ and better at loading stations for the old stock that still remains unsold. Poultry is weak. Eggs are unchanged. Creamery butter is one cent higher.

## Chicago.

Wheat.—No. 2 red, 89@91¢; July, 90¢; Sept., 89 1/2¢ per bu.

Corn.—No. 2, 55 1/4@56 1/4¢; July, 56 1/4¢; Sept., 58 1/2¢ per bu.

Oats.—No. 2 white, 40 1/2@41 1/2¢; July, 40 1/2¢; Sept., 41 1/4¢.

Barley.—Malting grades, 90¢@1.05 per bu; feeding, 75@85¢.

Butter.—Creamery values followed Elgin in a 1¢ advance at this week's opening, while dairies moved up 2¢. The volume of business appears sufficient to sustain the advance. Quotations: Creameries, 19@23¢; dairies, extra, 21¢ per lb.

Eggs.—Little change in conditions governing this market. Demand is only moderately good and prices show no change. The quotations are: Prime firsts, 14¢; firsts, 13¢ per doz; at mark, cases included, 11@11 1/2¢.

Potatoes.—Receipts of both old and new continue very light, carrying prices to the highest point of the year. Choice to fancy old are quoted at \$1@1.10 per bu; good to choice new, \$2.15@2.25 per bu.

Beans.—Market steady; prices show no change. Choice hand-picked pea beans quoted at \$1.95@2 per bu; prime, \$1.85@1.95; red kidneys, \$3.25@3.65 per bu.

Hay and Straw.—All grades of hay 50¢ @ \$1 lower, the poorer grades suffering most. Rye straw also 50¢ lower. Market reported firm at the following range: Choice timothy, \$23@24; No. 1 timothy, \$20.50@22; No. 2 do. and No. 1 mixed, \$18@20; No. 3 do. and No. 2 mixed, \$15@17; rye straw, \$8@8.50; oat straw, \$7@7.50; wheat straw, \$6@6.50 per ton.

## New York.

Butter.—General trade comparatively light and prices remain unchanged. The better grades of creamery are firm but the medium qualities are accumulating and are barely steady. Creamery specials are quoted at 24¢; extras, 23¢ per lb.

Eggs.—Market irregular and uncertain. Prime stock is quoted higher while medium and under grade stock is hard to sell at prices somewhat below those quoted a week ago. Fresh gathered extras, 19@21¢; firsts, 14 1/2@15¢; seconds, 13 1/2@14¢; western gathered whites, 17@19¢.

Poultry.—Dressed—Fresh killed turkeys, 12@16¢; fowls, 12@15¢; western broilers, 18@25¢.

## Boston.

Wool.—The activity noted heretofore of brokers in the fields and the support that competition among different houses is giving the trade, still maintain. Prices continue to look upward and much buying is being done, it being stated that fully one-half of this year's crop is now in the hands of the agents. Heavy shipments are being made to eastern points.

Following are the quotations for the leading domestic grades: Ohio and Pennsylvania fleeces—Delaine washed, 30¢; XX, 27@28¢; fine unmerchantable, 22¢; 1/2-blood combing, 25¢; 3/4-blood combing, 24 1/2@25¢; 1/4-blood combing, 23@24¢; delaine unwashed, 24¢; fine unwashed, 19@19 1/2¢. Michigan, Wisconsin and New York fleeces—Fine unwashed, 17 1/2¢; delaine unwashed, 23¢; 1/4-blood unwashed, 24¢; 3/4-blood unwashed, 24¢. Kentucky, Indiana and Missouri—1/4-blood, 23¢; 1/4-blood, 22 1/2@23¢. Scoured basis: Texas—Fine 12 months, 46@48¢; fine 6 to 8 months, 43@44¢; fine fall, 41@42¢.

## Elgin.

Butter.—Market firm at 23¢ per lb., which is an advance of 1¢ over the quo-

tation of last week. Output for the week amounted to 1,132,400 lbs., as compared with 1,123,200 lbs. for the previous week.

## THE LIVE STOCK MARKETS.

## Buffalo.

June 19, 1911.  
(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of stock here today as follows: Cattle, 190 cars; hogs, 14,400; sheep and lambs, 7,000; calves, 2,200.

With 190 cars of cattle on sale here today, and 25,000 reported in Chicago, our market is from 10@15¢ per cwt. lower on all the dry-fed cattle, and from 15@30¢ per cwt. lower on everything that has been to grass. Would advise shippers to be very careful on these slippery, grassy cattle of all grades, as they are from 15@30¢ per cwt. lower than last week, and will continue to go still lower in the near future.

We quote: Best 1,300 to 1,600-lb. steers \$6.40@6.60; good prime 1,200 to 1,350-lb. steers, \$6.15@6.30; best 1,100 to 1,200-lb. shipping steers, \$5.50@6; medium butcher steers, 1,000 to 1,100, \$5.10@5.50; light butcher steers, \$4.65@5.15; best fat cows, \$4.50@5; fair to good do., \$3.50@4.25; common to medium do., \$3.60@4.25; trimmers, \$2.25@2.75; best fat heifers, \$5.25@5.75; good do., \$4.75@5.15; fair to good do., \$4@4.65; best stock heifers, \$4.25@4.50; common do., \$3.75@4; best feeding steers, dehorned, \$4.50@4.75; common feeding steers, \$3.75@4; best bulls, \$5@5.25; bologna bulls, \$3.75@4.25; stock bulls \$3.50@3.75; best milkers and springers, \$5@6; common to good do., \$2@3.00.

The hog market ruled fairly active after the opening, with the yorkers, mixed and medium selling from \$6.50@6.55; largely at the latter price. Pigs and lighter weights from \$6.25@6.35, according to weight and quality; the bulk of the pigs going at \$6.35. Good quality rough sows sold mostly at \$5.50, with commoner grades going around \$5.25@5.40. Stags sold mostly at \$4.25@4.75; few fancy at 5¢ per lb. Few late arrivals, choice quality hogs sold at \$6.60. Hogs are well cleaned up today; market closing firm. We think the prospects fair for the balance of the week.

The lamb and yearling market opened slow today, and sheep very dull. The most of the choice spring lambs selling from \$7.25@7.50; few at \$7.75. Yearling lambs, \$5.75@6. The demand was very light for heavy ewes today, and also heavy wethers; few choice handy wethers selling at \$4@4.10. Prospects don't look any better for sheep the balance of this week.

We quote: Best spring lambs, \$7.25@7.75; wethers, \$3.90@4.10; cull sheep, \$1.50@2.50; bucks, \$2.50@3; yearling lambs, \$5.75@6; handy ewes, \$3.25@3.50; heavy ewes, \$3@3.25; veals, choice to extra, \$8.50@8.75; fair to good do., \$7@8.25; heavy calves, \$3.50@4.50.

## Chicago.

June 19, 1911.  
Cattle. Hogs. Sheep.  
Received today ..... 25,000 40,000 18,000  
Same day last year.. 20,388 25,159 8,567  
Received last week.. 48,659 147,303 91,174  
Same week last year.. 58,289 120,475 100,923

The new week opens with a slow demand for cattle aside from fat lots, which are steady at the advance of 10¢ shown last week on lots above \$6. Other kinds are slow and largely a dime lower, with some transactions 15@25¢ lower than a fortnight or so ago. Hogs are active and largely 5¢ higher, with numerous sales at \$6.35, the top figure, and sales are made all the way down to \$5.90 for the poorest grade. The average weight of hogs received last week was 238 lbs., compared with 242 lbs. a year ago and 219 lbs. two years ago. Stags are salable at \$6.15@6.50, subject to 80 lbs. dockage per head, while boars sell at \$2.25@2.75 and pigs at \$5.60@6.20. Sheep and lambs are active and largely considerably higher, spring lambs being in demand at \$5@7.25 per 100 lbs. Clipped lambs sold at \$3.50@4.50 for culls and common stock up to \$6@6.60 for better lots, and prime lambs would bring \$6.75, if any were here. Clipped stock sold at \$2@3.85 for ewes; \$3.75@4.50 for wethers; \$2@3 for bucks and \$4.25@5.50 for yearlings. Oregon ranges sent in a train of 885 head of yearlings, and the best went to killers at \$4.75, while the other end sold for feeders at \$3.90. A good many range flocks of yearlings started for here have been unloaded at pastures near by, and they will show as soon as prices are satisfactory. These hail from Texas, Arizona and Washington. Sheep and lambs are much lower than in recent years, and so are cattle, as well as hogs, but hogs are selling about the same as a week ago, notwithstanding the recent good supplies. The outlook seems encouraging for both cattle and matured hogs.

Cattle have been coming to market rather freely for another week, but there was a continued good general demand, buying being more animated than a few weeks ago, and prices for desirable offerings had further fair advances. The opening day saw a sale of 32 head of fancy 1,564-lb. steers at \$6.65, the highest figure paid since the middle of April, and the bulk of the steers sold during the week brought \$5.60@6.30, with choice beefs going at \$6.30 and upward, good steers at \$6 and over and common to fair steers at \$4.75@5.75. Fat yearlings sold at \$5.75@6.50, while export cattle were salable at \$5.65@6.20. A good many cattle on the commoner order were shipped in prematurely on account of the shortage of grass and water resulting from the drouth in western Illinois, Missouri and southern Iowa. Buyers were particular as to quality and refused to pay any advance on the ordinary cattle. Cows and heifers were in good butcher demand at \$3.30@6.25, with cutters selling

at \$2.80@3.25, canners at \$2@2.75 and bulls at \$3@5.65. Calves of the best grade were still higher, being in strong demand at \$7.25@8.75 per 100 lbs., while the commoner lots sold at \$3.50@6. Milk-ers and springers were in restricted demand at \$30@60 per head, the call being principally for good milkers and good backward springers. The stocker and feeder trade was checked materially by the inferior average quality of the offerings, prices reaching still lower levels, although the few prime cattle offered sold extremely high. Stockers were quotable at \$3.50@5.40, feeders at \$4.75@5.60 and stock and feeder heifers at \$3.25@4.50. Missouri and the southwest have been marketing a good many thin cattle on the stocker order at Missouri river points on account of dry pastures, and there, as well as here, farmers wanting a cheap class of cattle for grazing can get them at greatly reduced terms, but not many care for the kind, even at the low figures at which they are offered.

Hogs have been marketed much more liberally recently, both here and at Missouri river markets, as well as in the east, the country taking advantage of the cool weather to make shipments. With no corresponding development of the eastern shipping demand, it was impossible to prevent declines in prices, and several breaks took place, the great bulk of the hogs going above \$6, although by Thursday the sales were on a lower basis. The provision trade continued active on domestic and foreign account, and stocks at last accounts were liberal, the commoned holdings June 1 at the five principal western markets amounting to 299,473,000 lbs., compared with 286,100,000 lbs. a month earlier and 171,170,000 lbs. a year ago. Butcher hogs weighing from 200 to 230 lbs. were among the highest sellers, selling along with light bacon hogs, while heavy packing hogs went at the lowest figures, as usual, rough, heavy sows arriving in increasing numbers. Stags sold highest of all, and pigs continued good sellers, with strong-weight pigs about as high as prime bacon hogs. Hogs averaged well in quality, showing good feeding.

Sheep and lambs have undergone some severe declines in prices recently on account of the liberal offerings, and this has led to checking the shipments to a considerable extent. Not only have supplies here been heavy, but other markets east and west have been glutted a good deal of the time, causing declines all through the list, but especially on the poorly fattened offerings, which have made up a large percentage of the receipts. The Chicago packers have been receiving extremely large supplies of southern spring lambs consigned direct from Louisville, and fed stock, as well as spring lambs, were shipped in freely from the region around here, while Washington and Arizona yearlings, mainly on the feeder order, have shown up at times in good numbers. Spring lambs now comprise the bulk of the lamb receipts, and nearly all of last year's lambs are now yearlings. There is still a good demand for feeders, and available offerings sell readily.

Horses sold well or otherwise last week according to whether they were desirable in quality or inferior. The receipts underwent an increase, and buyers for the commoner kinds were few, so that prices for such were weak. Some desirable chunks that weighed around 1,000 lbs. sold around \$230, while good chunks that weighed around 1,500 lbs. were in demand at \$240@250. A fine team of farm chunks went at \$490, and choice draft teams brought \$575@600. Plenty of horses were sold at \$80@150 per head.

## LIVE STOCK NOTES.

Dairy interests come strongly to the front in June, the month of choice early grass butter. There has been an extremely large demand for the best lots of creamery butter to place in cold storage, this industry having grown to enormous proportions in recent years, and recent purchases have resulted in an advance in prices. These upward turns tend to check such speculative buying temporarily, but on reactions the buying is renewed on an active scale, and while this demand is going on it is practically impossible to buy any prime butter in the retail groceries. Last year speculators who had stocks of cold storage butter and eggs suffered in many instances serious losses, the business having been overdone at a time when production was unusually liberal. The recent hot weather was unfavorable for placing eggs in storage, as receipts arrived in many instances in a heated condition.

There is all the time a strong demand in the Chicago market for sheep and lambs adapted for grazing and feeding. The other day a sale was made of a bunch of 675 good Texas feeder wethers that averaged 92 lbs. at \$3.50 per 100 lbs. Feeder sheep and lambs look cheap when prices are compared with those paid a year ago, recent sales having been made about \$1 per 100 lbs. lower than at that time. A great many stockmen lost money in feeding sheep and lambs the past winter and spring, and many of them are going to try their luck again, hoping for better results. Not long ago Washington yearling feeders brought \$4.50 in the Chicago market, while feeding ewes have sold as low as \$3. The first range flocks of the season to show up in the Chicago market hailed from Washington, consisting of yearlings that lacked flesh, and most of them were just adapted for feeders, the best going to killers at \$5.

At a recent convention of cattlemen in the northwest it was decided to reduce the size of the herds in the future and to improve the quality of the beef cattle. It being the universal opinion that better breeding, better feeding and better general attention would pay well.



## THIS IS THE FIRST EDITION.

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

## DETROIT LIVE STOCK MARKETS.

## Thursday's Market.

June 15, 1911.

## Cattle.

Receipts, 912. Bulls and common cow stuff 25@40c lower; other grades 10@20c lower.

We quote: Best steers and heifers, \$5.50 @5.60; steers and heifers, 1,000 to 1,200, \$5@5.50; steers and heifers, 800 to 1,000, \$4.75@5; grass steers and heifers that are fat, 800 to 1,000, \$4.50@4.75; steers and heifers that are fat, 500 to 700, \$3.50 @4.50; choice fat cows, \$4.50; good fat cows, \$4@4.25; common cows, \$3.50@3.75; canners, \$2.50@2.75; choice heavy bulls, \$4@4.25; fair to good bolognas, bulls, \$3.75 @4; stock bulls, \$3.50@3.75; choice feeding steers, 800 to 1,000, \$4.50@5; fair feeding steers, 800 to 1,000, \$4@4.25; choice stockers, 500 to 700, \$4@4.50; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.50@4.25; milkers, large, young, medium age, \$4@50; common milkers, \$25 @35.

Bishop, B. & H. sold Newton B. Co. 1 cow weighing 1,260 at \$4, 2 do av 1,375 at \$4.75; to Johnston 3 do av 720 at \$3.50, 1 do weighing 700 at \$3.50; to Breitenbeck 1 bull weighing 1,170 at \$4.25; to Parker, W. & Co. 2 do av 1,015 at \$4.50, 1 do weighing 820 at \$4, 2 do av 1,370 at \$4.50; to Goose 1 cow weighing 890 at \$3.25, 2 do av 1,110 at \$4, 1 do weighing 1,130 at \$3.75, 2 do av 875 at \$3; to Kamman 3 butchers av 1,013 at \$5.10; to Austin 2 steers av 1,075 at \$4.75; to Bresnahan 8 steers and heifers av 562 at \$4.25, 15 butchers av 623 at \$4.15; to Kamman B. Co. 2 cows av 865 at \$4.25, 3 steers av 857 at \$5; to Mich. B. Co. 26 butchers av 848 at \$5.20; to Jackson 3 cows av 880 at \$3.60.

Roe Com. Co. sold Rattowsky 4 cows av 1,132 at \$4.15; to Fry 3 butchers av 783 at \$4.65, 4 do av 732 at \$4.65, 6 do av 723 at \$4.65; to Hammond, S. & Co. 2 do av 1,015 at \$2.75, 10 do av 892 at \$4.25; to Newton B. Co. 3 do av 716 at \$4.25, 10 do av 920 at \$5.25, 1 steer weighing 1,400 at \$6, 15 do av 1,140 at \$5.85, 2 do av 1,135 at \$5, 1 bull weighing 1,100 at \$4; to Sullivan P. Co. 5 butchers av 790 at \$5, 1 steer weighing 1,180 at \$5.50; to Mich. B. Co. 3 butchers av 1,107 at \$4.50; to Newton B. Co. 13 do av 520 at \$3.75, 9 steers av 974 at \$5.75.

Haley & M. sold Newton B. Co. 6 cows av 1,663 at \$3.90, 3 do av 1,150 at \$4.40; to Regan 1 steer weighing 600 at \$4.50; to Bresnahan 2 heifers av 485 at \$4.25; to Breitenbeck 1 steer weighing 880 at \$5.25, 15 do av 925 at \$5.40, 2 bulls av 1,350 at \$4.50; to Johnson 4 stockers av 565 at \$4.10, 1 cow weighing 800 at \$3.60; to Regan 1 bull weighing 450 at \$3.50; to Sullivan P. Co. 2 cows av 785 at \$3, 2 bulls av 615 at \$3.50, 7 cows av 1,006 at \$4.10, 1 bull weighing 870 at \$3.25, 2 do av 1,420 at \$4.10, 3 steers av 1,070 at \$5.50, 1 bull weighing 1,200 at \$4.30; to Rattowsky 1 cow weighing 700 at \$3, 2 do av 940 at \$4; to Regan 2 heifers av 510 at \$4; to Parker, W. & Co. 1 bull weighing 1,200 at \$4.25; to Thompson Bros. 1 do weighing 1,320 at \$4.30, 1 do weighing 620 at \$3.50.

Spicer & R. sold Regan 5 butchers av 626 at \$4.50; to Bresnahan 1 cow weighing 1,020 at \$3.60, 4 butchers av 585 at \$3.75, 2 do av 610 at \$4; to Mich. B. Co. 27 do av 880 at \$4.85, 9 do av 872 at \$5, 4 do av 620 at \$4.50, 2 cows av 970 at \$3.75, 4 do av 788 at \$2.50, 2 do av 915 at \$3.50, 2 do av 850 at \$4, 1 do weighing 980 at \$4.50, 5 bulls av 920 at \$4, 3 do av 816 at \$4, 4 steers av 885 at \$5.25, 4 do av 695 at \$4.65, 4 do av 767 at \$4.65; to Laboe 1 bull weighing 1,430 at \$4.25, 1 do weighing 1,100 at \$4.15, 1 do weighing 900 at \$4.15, 2 do av 1,000 at \$4.15, 3 do av 1,200 at \$4.25, 2 do av 915 at \$4; to Fry 2 steers av 800 at \$4.75, 3 do av 960 at \$5.50, 4 do av 780 at \$4.75, 4 do av 720 at \$4.75; to Lachalt 2 cows av 1,000 at \$4.50; to Bresnahan 3 heifers av 726 at \$4.85, 2 do av 575 at \$4.85, 4 butchers av 655 at \$3.50; to B. S. & Co. 4 stockers av 390 at \$3.25, 3 do av 733 at \$4.50, 4 cows av 837 at \$4.25.

Sandall sold Parker, W. & Co. 5 bulls av 956 at \$4.

Sharp sold Kamman B. Co. 2 cows av 965 at \$3.25, 3 butchers av 826 at \$4.90.

Sandall & T. sold Mich. B. Co. 19 steers av 900 at \$5.

## Veal Calves.

Receipts, 1,153. Market strong at Wednesday's prices; 25c higher than last week. Best, \$7.50@8; others, \$4@7; milch cows and springers steady.

Roe Com. Co. sold Hammond, S. & Co. 12 av 153 at \$8, 7 av 113 at \$6; to Sullivan P. Co. 17 av 150 at \$7.50, 5 av 111 at \$6; to Hammond, S. & Co. 3 av 125 at \$6, 21 av 140 at \$7.50.

Haley & M. sold Thompson Bros. 14 av 150 at \$7.75, 9 av 145 at \$7.50; to Rattowsky 7 av 150 at \$7.75; to Mich. B. Co. 2 av 225 at \$6, 9 av 145 at \$7.50; to Burnstine 3 av 120 at \$6, 12 av 160 at \$8, 7 av 155 at \$8, 11 av 170 at \$8; to Parker, W. & Co. 25 av 150 at \$7.75, 11 av 170 at \$8.

Bishop, B. & H. sold Goose 8 av 125 at \$7, 1 weighing 280 at \$4; to Mich. B. Co. 31 av 150 at \$7.50; to Newton B. Co. 21 av 150 at \$7.75; to Parker, W. & Co. 7 av 160 at \$8, 8 av 150 at \$7.75; to Bray 2 av 170 at \$8; to Newton B. Co. 4 av 155 at \$7.50; to Hammond, S. & Co. 12

av 150 at \$8, 2 av 160 at \$6, 4 av 120 at \$5, 16 av 155 at \$8, 19 av 145 at \$7.50, 3 av 150 at \$8; to Nagle P. Co. 10 av 144 at \$6, 8 av 125 at \$7.50, 12 av 145 at \$7.75, 8 av 150 at \$8, 27 av 170 at \$8, 8 av 150 at \$7.50; to Mich. B. Co. 5 av 160 at \$8, 6 av 150 at \$8, 8 av 130 at \$8; to Hammond, S. & Co. 5 av 120 at \$6, 13 av 155 at \$8, 12 av 150 at \$7.75; to Nagle P. Co. 33 av 130 at \$6.50; to Sullivan P. Co. 3 av 160 at \$7.75; to Parker, W. & Co. 15 av 150 at \$7.50.

Spicer & R. sold Goose 2 av 185 at \$5, 10 av 159 at \$7.50; to Sullivan P. Co. 8 av 150 at \$7, 11 av 155 at \$7.50, 11 av 157 at \$7.75, 3 av 160 at \$8, 2 av 135 at \$8, 6 av 150 at \$8, 5 av 160 at \$7.50, 5 av 125 at \$6.50, 3 av 145 at \$6; to Patrowsky 12 av 150 at \$8; to Goose 10 av 159 at \$7.50; to Bray 3 av 180 at \$7.75, 68 av 150 at \$7.50, 5 av 125 at \$6.50.

Sharp sold Mich. B. Co. 23 at \$7.75. Sandall & T. sold Hammond, S. & Co. 3 av 120 at \$6.50, 12 av 150 at \$7.75. Johnson sold Goose 14 av 140 at \$7.25. Weeks sold same 14 av 150 at \$7.75, 3 av 170 at \$7.75.

## Sheep and Lambs.

Receipts, 1,875. Market 50@75c lower than last week on all kinds. Quotations are for spring lambs. Best lambs, \$7; fair to good lambs, \$5.50@6.50; light to common lambs, \$4.50@5; yearlings, \$6; fair to good sheep, \$3@3.50; culs and common, \$2@3; grass yearlings, \$4.50@5.50; heavy fat sheep, \$3@3.25.

Spicer & R. sold Barlage 11 lambs av 88 at \$6, 12 do av 48 at \$6, 6 sheep av 88 at \$3; to Sullivan P. Co. 21 lambs av 63 at \$7.25.

Johnson sold Mich. B. Co. 9 sheep av 115 at \$3.50, 11 lambs av 87 at \$5. Same sold Thompson 18 lambs av 55 at \$6.10.

Haley & M. sold Barlage 43 lambs av 63 at \$6.50, 15 sheep av 80 at \$3, 24 lambs av 75 at \$4.50; to Mich. B. Co. 55 lambs av 105 at \$6.

Roe Com. Co. sold Mich. B. Co. 5 sheep av 125 at \$3.25, 1 buck weighing 170 at \$3; to Thompson Bros. 11 sheep av 100 at \$3.25; to Mich. B. Co. 11 lambs av 79 at \$5.

Bishop, B. & H. sold Mich. B. Co. 9 lambs av 78 at \$5.50, 11 do av 76 at \$6.25, 4 sheep av 110 at \$3.50, 58 lambs av 63 at \$7.50, 21 do av 70 at \$6.25, 22 do av 80 at \$6.50, 11 sheep av 120 at \$3.50, 5 do av 111 at \$3.50, 51 lambs av 78 at \$6; to Thompson Bros. 6 sheep av 155 at \$2.50, 3 do av 100 at \$2, 12 do av 150 at \$2.50, 15 lambs av 45 at \$4.50; to Parker, W. & Co. 12 sheep av 105 at \$3.50, 29 do av 95 at \$3.50; to Mich. B. Co. 31 lambs av 95 at \$5.75, 26 do av 78 at \$5, 33 sheep av 125 at \$3.25, 10 do av 122 at \$3, 23 lambs av 85 at \$4, 22 sheep av 95 at \$3.75, 16 do av 100 at \$4; to Newton B. Co. 21 lambs av 65 at \$7; to Fitzpatrick Bros. 32 sheep av 80 at \$3, 41 do av 70 at \$3.50, 7 do av 78 at \$2.50.

## Hogs.

Receipts, 5,106. None sold at noon. Will be about the same as on Wednesday.

Range of prices: Light to good butchers, \$6.10@6.15; pigs, \$6@6.05; light yorkers, \$6.10@6.15; heavy, \$6.10.

Roe Com. Co. sold Sullivan P. Co. 131 av 180 at \$6.10, 475 av 200 at \$6.15. Haley & M. sold same 460 av 180 at \$6.15.

Spicer & R. sold Hammond, S. & Co. 1,045 av 190 at \$6.15.

Bishop, B. & H. sold Parker, W. & Co. 2,350 av 175 at \$6.15, 315 av 150 at \$6.10.

## Friday's Market.

June 16, 1911.

## Cattle.

Receipts this week, 1,574; last week, 1,130. Market steady at Thursday's prices.

We quote: Best steers and heifers, \$5.85; steers and heifers, 1,000 to 1,200, \$5.25@5.50; steers and heifers, 800 to 1,000, \$4.50@4.75; grass steers and heifers that are fat, 800 to 1,000, \$4.50@4.75; do. that are fat, 500 to 700, \$4@4.50; choice fat cows, \$4.50; good fat cows, \$3.75@4.25; common cows, \$3@3.50; canners, \$2.50@2.75; choice heavy bulls, \$4@4.25; fair to good bolognas, bulls, \$3.50@4; stock bulls, \$3@3.75; choice feeding steers, 800 to 1,000, \$4.50@5; fair feeding steers, 800 to 1,000, \$4@4.25; choice stockers, 500 to 700, \$4@4.50; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.25@3.50; milkers, large, young, medium age, \$4@4.50; common milkers, \$20@35.

## Veal Calves.

Receipts this week, 1,283; last week, 1,482. Market active and 50c@1 higher than on Thursday. Best, \$8.50@9; others \$4@8; milch cows and springers dull.

## Sheep and Lambs.

Receipts this week, 2,004; last week, 2,191. Market steady at Thursday's prices. Best lambs, \$7@7.25; fair to good lambs, \$5.50@6.50; light to common lambs \$4.50@5; yearlings, \$5.50@6; fair to good sheep, \$3@3.50; culs and common, \$1.50 @2.75.

## Hogs.

Receipts this week, 6,099; last week, 6,088. Market 5c higher than on Thursday. Range of prices: Light to good butchers, \$6.20; pigs, \$6.10; light yorkers, \$6.20; heavy, \$6.10@6.15.

The large marketing of matured hogs at Chicago and other western points in recent weeks has been a good deal of a surprise to the trade, and the decline in prices has exceeded most expectations. The last crop of hogs was evidently a larger one than was supposed, and by making the swine much heavier than in recent years, owners have further increased the pork supply materially. Farmers are naturally a good deal disappointed over the fall in prices, but there is no reason for becoming frightened into marketing young hogs prematurely. Healthy, growing hogs should be made to weigh at least 225 lbs. before selling on the market, and it is well to avoid the

Monday market when shipping consignments to Chicago, that being on an average a day of excessive receipts and lower prices. Country shippers have acquired the habit of furnishing unduly large supplies of both cattle and hogs for the Chicago market Mondays.

## GENERAL REVIEW OF CROP CONDITIONS.

The month of May was not, on the whole, very favorable for crop growth, drouthy conditions having prevailed over a great portion of the United States. In consequence the average condition of crop growth in the United States on June 1 was 2.8 per cent below the average condition on that date. Some relief from the unfavorable conditions came at the close of May and first part of June.

A comparison of the conditions of various crops on June 1, with their average growing condition on June 1 of recent years (past ten years for most crops) is shown as follows (100 representing average conditions and not normal):

Cotton, 108.5; sugar beets, 103.2; apples, 102.5; raspberries, 101.8; spring wheat, 101.1; watermelons, 100.3.

Pears, 99.7; cantaloupes, 99.6; black berries, 99.5; sugar cane, 99.5; barley, 99.2; winter wheat, 98.5; rye, 98.2; oats, 96.9; alfalfa, 96.1; onions, 95.5; lima beans, 92.5; cabbage, 91.0; pastures, 90.2; hemp, 89.0; clover hay, 84.6; all hay, 85.1; peaches, 83.5.

The above figures relate only to relative growing conditions, not taking into account changes in acreages.

Taking into account both acreage and condition, indications are for about 9.9 per cent larger wheat crop than was produced last year, and 10.2 per cent larger than the average of the past five years; oats crop 13.3 per cent less than last year but 4.8 per cent more than the average of the past five years; barley 8 per cent more than last year, and 5.3 per cent more than the five-year average. Total areas have not been estimated for the other crops, except that the rye area planted is about 1.2 per cent less than last year. Clover (for hay) acreage 6.3 per cent less and sugar cane acreage 0.4 per cent more than last year.

The average condition of all crops, by states, on June 1, was approximately as follows, 100 indicating the average (not normal) for recent years on June 1.

Maine, 93.7; New Hampshire, 84.2; Vermont, 89.0; Massachusetts, 82.3; Rhode Island, 86.2; Connecticut, 79.0; New York, 83.9; New Jersey, 81.6; Pennsylvania, 88.1. Average for above division 86.2; condition compared with June 1, 1910, 87.0 per cent.

Delaware, 81.1; Maryland, 84.7; Virginia, 85.3; West Virginia, 80.2; North Carolina, 97.2; South Carolina, 98.0; Georgia, 109.1; Florida, 108.8. Average for above division 98.7 per cent; condition compared with June 1, 1910, 98.0 per cent.

Ohio, 87.5; Indiana, 96.3; Illinois, 92.6; Michigan, 95.7; Wisconsin, 98.8. Average for division, 93.6 per cent; compared with June 1, 1910, 96.7 per cent.

Minnesota, 102.6; Iowa, 101.2; Missouri, 86.6; North Dakota, 100.6; South Dakota, 96.5; Nebraska, 98.7; Kansas, 85.3. Average for division 95.9 per cent; compared with June 1, 1910, 102.0 per cent.

Kentucky, 93.4; Tennessee, 95.1; Alabama, 111.3; Mississippi, 106.2; Louisiana, 110.8; Texas, 107.7; Oklahoma, 85.4; Arkansas, 104.6. Average for division 102.2 per cent; compared with June 1, 1910, 100.2 per cent.

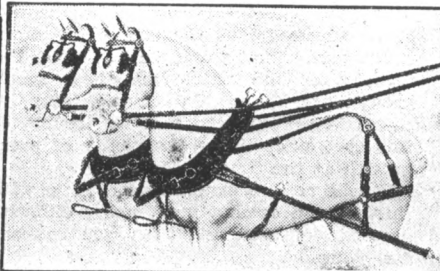
Montana, 100.3; Wyoming, 97.7; Colorado, 88.4; New Mexico, 111.4; Arizona, 107.1; Utah, 95.8; Nevada, 93.3; Idaho, 102.3; Washington, 103.1; Oregon, 103.2; California, 96.3. Average for division 99.1 per cent; compared with June 1, 1910, 96.1 per cent.

## MULEFOOT HOG ASSOCIATION ELECTS OFFICERS.

At a recent meeting of the American Mulefoot Hog Record Association, John H. Dunlap, of Williamsport, Ohio, was elected president, Prof. C. W. Burkett, of New York City, was elected vice-president, and H. C. Moore, secretary, with the office of the Association in Rooms 1201-05 Brunson Bldg., Columbus, Ohio.

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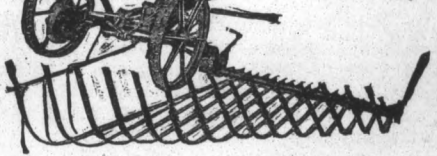
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This is a splendid fruit and dairy farm. Owner received \$1000 last season for apples alone. Large quantity pears, plums, cherries and grapes. 50 acres in machine worked fields, cuts 40 tons hay, 186 acres in wood and timber, if sold would pay for farm. Pasture for 25 cows, 10-room house, 40x60 barn and other out buildings, mill, 2 lakes, and 2 miles to two villages, near school, short distance to railroad station, fine locality, mail delivered. Owner is a widow and must sell at once. If taken now will include mowing machine, harrow and tools for only \$3,700, part cash, easy terms. For details of this and picture of beautiful residence, see page 45 Strout's Catalogue No. 34, biggest and best farm catalogue ever issued, full details regarding railroads, climates, markets, schools and crops raised, etc., 15 states. Copy free. Station 101. E. A. Strout, Union Bank Bldg., Pittsburgh, Pa.



# HORTICULTURE

## THINNING FRUIT.

Now that the season has favored us so bountifully with a full set of most kinds of fruit it will be necessary for us to do our part and prevent all of it being small and the trees so weakened that we can expect only a light crop next season, by thinning out the fruit.

Probably the first crop that will be ready for thinning is the peach crop, closely followed by plums and early apples, after which will come the fall and winter varieties. Peaches are ready to begin thinning soon after the husk, or bloom surrounding the young peach, falls, or as soon as it attains the size of a common chestnut. The operation must be left to the judgment of the operator, but if there is a full crop it is not likely that it will be done too severely. The tendency, especially among the amateurs, is the other way. The peaches look to be plenty thin enough because they are so small, but if we could see the tree with this load matured and compare it with one which has been well thinned and matured its fruit we would see that a thorough thinning is desired.

In thinning peaches, as with apples, the first thing is to pull off all small, imperfect fruit, and the next is to thin that which remains so that the tree can mature the load easily, and it will be well distributed throughout the tree, and so no fruits will touch each other. The distance apart to leave the fruits on a branch will vary with the distribution of the crop on the tree, the age of the tree, its vigor, and other things. In general, the younger the tree the more thinning it should have if it sets a full crop, as a real young tree should not be allowed to overbear. As a rule, peaches may be thinned to from four to six inches on a branch, and left so there will be no clusters. Each fruit will then be from four to six inches from its neighbor. If the tree was set full when thinning begins it may be possible to remove three-fourths of the fruit and still leave all the tree can grow to a profitable market size, and there will probably be as many bushels harvested as there would have been had the fruit not been thinned. Each bushel will certainly command a much better price.

Plums are not thinned by the ordinary farmer or small grower as much as peaches, but they need it, none the less. If the plums are properly thinned the rot is much more easily controlled, and the plums will be larger and more even in size. It will also be less impoverishing to the tree, as there will be many less pits to grow, and the growing of pits is much more drawing on the nourishment of the tree and soil than the growing of surplus flesh on fewer pits. It is size and quality of flesh we want and not pits, and we can secure this end by proper thinning. The flesh being mostly water does not draw seriously on the tree's nourishment.

Apples have not been extensively thinned up to a few years ago, but the practice is now becoming quite the rule among the best growers. They find from actual experience that it pays and pays well. This season some varieties will be in especial need of thinning, as the season during blooming was so favorable for pollination that many varieties set more fruit than they can grow well. This is especially true of most of the early varieties, and these are generally in need of thinning more than the winter ones. Transparent, Duchess, Astrakhan, Wealthy, etc., are quite likely to give a full set of fruit every second year, and experiments have shown that as many bushels of much larger and better fruit will be secured if they are thinned.

The operation is performed much the same as with peaches, the small imperfect, and diseased fruit being removed from the branch first, then if necessary, enough of the other fruits removed so they will be at least six inches apart on an average on the branch. In general, it is best to remove all but one of a pair or cluster, though there may be exceptions to this. For instance, if all the fruit, or most of it, is in clusters and the clusters are some distance apart, it may be best to leave two or even three in a cluster. Usually, however, there are many more imperfect apples among those that cluster or touch, and worms are much more likely to enter at this place. We have found that an ordinary apple tree can be thinned at a cost of from 25 to 50 cents

apiece, which makes the expense more moderate than many presume.

Calhoun Co.

S. B. HARTMAN.

## SAVE THE FRUIT TREES.

The San Jose scale is working on many of the trees, especially apple, peach and plum in Southern Michigan and have injured them to such an extent that all of the smaller branches have been killed. The trunks and larger branches are still vigorous and are sending up strong, healthy shoots. If the dead portions are cut away and the remainder of the tree sprayed with lime-sulphur solution about the first of July, it will be possible to save the trees.

At that time the young scales have appeared and can be readily killed by the use of commercial lime-sulphur solution if used at the rate of one part to 30 of water. Whenever possible to spray the trunks and larger branches with a strong solution, 1-12, without getting it upon the leaves or new growth, this should be done.

In the case of peach trees the application to the new shoots should not be stronger than 1-80, but stronger mixtures can be used upon the branches.

If the trees are handled in this way the injury from the scale may prove a blessing as the scale can be easily controlled and if the trees are cut back a new head will be formed which will practically renew them.

Persons who have trees apparently dying from some unknown cause are urged to send specimens of the bark from the two-year-old branches to the undersigned.

Agril. College.

L. R. TAFT.

## MULCH MATERIAL.

This seems to be a rather strange time to be talking about getting a mulch ready for strawberries. We have tried several different things for this mulching and have something yet to learn, as is the case with any other crop or practice.

That a covering of straw or something is needed to prevent the strawberries from becoming dirty or sandy from every rain when the picking season is on, is acknowledged by every person who produces berries for sale. This year we have used a crop of oats sown between the rows during the fall. It will depend somewhat upon the fertility of the soil and on the season as to the amount of success you might have with this method of making a mulch. Last year we put this strawberry patch by about August 10, and no further working was done by the horses after that. When the last cultivation was made there we sowed clean oat seed between the rows of berries. The rate would be hard to give because we only sowed between the rows. But where we sowed the oats they seemed to be about as thick as when sowed for the regular crop.

After this there was little to be done to the patch other than go through occasionally and get out whatever stray weeds might be found loose. This in itself makes a considerable saving of labor and time in care, especially if the field is large.

The oats were sown by hand, of course, and cultivated into the soil by a one-horse rig. Naturally the most oats would fall between the rows. This was what was wanted since it is between the rows that the straw is needed. As an experiment we sowed a parcel of the patch twice as thick but found that the growth was too heavy. It seemed to be a hindrance to the growth of the plants and where the stalks fell over it killed out some of the strawberries.

In some cases this method might not be as successful as the straw put on in the winter. That would depend upon the fertility of the patch and how much growth had been made before sowing the oats. With us there was no trouble of this sort since there was plenty of plant growth at the time of sowing.

It will pay to experiment a little with this for the coming year, using different amounts of seed and then you can see for yourself.

Ohio.

R. E. ROGERS.

## TOMATO CULTURE SUGGESTIONS.

By staking tomatoes we mean nothing more than growing the plants to one, two or three stems or branches, instead of permitting them to become low bushes and drop all over the ground, with consequent danger of rotting, of fruit and probability of late ripening. Where tomato plants are staked—that is, fastened

to upright sticks, clean cultivation is possible between the rows and the sunlight coming in ripens the fruit much earlier, not to mention the fact that there is an absence of dirt on the bright red vegetable when shipped to market, meaning better prices. To make the plant grow to one, two or three stems, it is necessary to pinch off at regular intervals all the little shoots that appear as the plant matures, so that the strength is forced not into half a hundred branches, but into the main arteries and thence into the fruit, which will be larger and juicier.

Where tomatoes are grown in a sheltered locality or in a garden close to the house, where the wind can not jar the plants or insects, in their search for food, can not pollinate the flowers, it may be necessary to resort to artificial or hand pollination. A satisfactory way to do this, as recommended by the department of agriculture, is to use a watch glass, embedded in putty, at the end of a handle composed of a light material, preferably white pine, which shall be 12 or 18 inches long. With this in the left hand, and with a light pine stick of equal length in the right hand, pass along the plants tapping each open flower lightly with the wand, at the same time holding the watch glass under the flowers to catch the pollen. Before removing the watch glass from this position lift it sufficiently to cause the stigma of the flower to dip into the pollen contained in the glass.

Of course, staking is not to be recommended for those that grow tomatoes for the cannery, but instead is only profitable where one caters to the fancy trade or desires to grow a few choice specimens. Anyway, there is plenty of amusement, if not instruction, in making a test on a small scale. In the south where tomatoes are grown for early market, staking is quite common over large fields many acres in extent.

## HANDLING THE SURPLUS PRODUCT.

In harmony with that progressive American spirit which keeps a constant eye upon the future, the bumper fruit crop that is being promised for the season now on, is already attracting the attention of those who are concerned in the care of the surplus production. Unless the crop is damaged in some manner by the elements an unusual crop will result. This means that there will be a large amount of cull apples, especially from the orchards where spraying is not done systematically and thoroughly. Those who have cider presses and do their own and custom grinding are preparing to meet the demand upon them by getting their machinery in order. Many are purchasing new machines and still others are enlarging their plants so that they can manufacture not only cider but make, in connection therewith, many other products, such as apple-butter, jellies, boiled cider, cider beverages and cider vinegar. That such an institution is a great saving to a community is a matter beyond question, since it conserves to the wealth thereof nearly its full output, for the fruit taken to the mill is, if not so disposed of, allowed to remain on the ground and rot. It is further to be commended upon the ground that the delicacies provided for the table during the winter months aids greatly in giving to the meals variety as well as quality.

Wayne Co.

C. T. B.

That "eternal vigilance is the price of success" is certainly an undisputed fact and it is as clearly proven in fruit culture as in any other industry. The watchful, careful worker will reap the reward of his labors, while the sluggard will declare there is no money in fruit growing.

## BOOK NOTICE.

Garden Profits, by E. L. D. Seymour. is a comprehensive work in which practical phases of garden operations are discussed in an expert way. Such subjects as "A new kind of garden economy," "The two greatest garden problems and their solution," "Starting plants in the chicken brooder," "Hot-bed results without a hot-bed," are made plain and simple that the amateur may easily understand. Illustrated, 250 pages, cloth, \$1.00 per volume. Published by Doubleday, Page & Co., and secured through the Michigan Farmer offices.

The Ohio Cultivator Company, No. 106 Ohio street, Bellevue, Ohio, send an interesting booklet describing their Ohio Hay Presses which have been advertised in different numbers of this publication. The numerous advantages of Ohio hay presses are mentioned in this booklet, which should be secured by every reader interested in hay presses. Mention the Michigan Farmer when writing for same.

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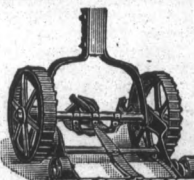
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## Woman and Her Needs At Home and Elsewhere.

### Why Some Mothers Can Not Exact Obedience.

I can't do anything with my Robert," whined the mother of a sturdy four-year old, who had just ran pell mell into the street in spite of having been told to stay in the house, "He doesn't pay the least attention to anything I say." And then she turned to her work, leaving Robert to stay in the street where he had been forbidden to go.

The scene at the dinner table later was a painful one. Robert decided that a spoon was a superfluous article, and "shoveled" most of his food into his mouth with his fingers. His mother, flushed and embarrassed, "Deared" and "Darlinged" and told him gentlemen didn't eat that way, and she didn't know what his father would say. As a climax to the orgy, Robert picked up a generous slice of bread and demanded that it be dipped in the gravy on the meat platter. The mother refused to obey little Bobby's demand. He howled and she pleaded, but still stuck to her colors. It looked as though she really was going to win out on one point, when grandma interfered.

"Oh, give it to him if he wants it, his father isn't here," she exclaimed. "Anything is better than his crying." So Bobby got his bread, with which he at once left the table, dripping bits of suet as he went. And once more he had demonstrated that a good lively boy with strong lungs and the disposition to exercise them in lusty screeches can bulldoze two grownup women.

The mother again sighed as he left the table. "I don't know what's going to be done," she said. "I simply can't make him mind. His father has only to speak to him, but I can talk and talk and it doesn't do a bit of good."

"Because he knows his father means what he says," I couldn't help but remark. "And he knows that you will give up if he makes fuss enough."

But as usual, I had said too much, and a dignified turning of the conversation by my hostess was my only thanks for a bit of free advice.

All the same, the secret of good discipline lies in that one thing, to mean exactly what you say, and stick to it. Obedience or disobedience are habits, and good habits are easily formed if one only takes the pains. The only thing necessary is infinite patience. A child will not learn to obey of himself, he must be taught. If you tell him to do a thing, be it never so unimportant, see that he does it, if you have to take a half day to secure obedience. And make this your hard and fast rule. Don't be strict and particular today, and tomorrow let the children do as they please. It may mean hard work for the first two or three years, but if you determine to win out, the child will learn in time that it is really better to do as he is told than to disobey, and your troubles will be over.

That is why so many mothers can not control their children. They give up, because at the moment it is easier to give up than it is to stick it out and exact obedience. The child learns at once that his mother isn't as strong as he is when it comes to a contest of wills and the mischief is done. Let them know from their earliest moments that screaming isn't going to get them the thing they want if you think it isn't good for them, and in time they will cease to fight and scream. As one wise little mother puts it,

"To secure a well behaved child means keeping constantly at them for the first five years, but after that, you can begin to take comfort."

Do not make the mistake of thinking "Keeping at them" means nagging. It means constant watchfulness, wise supervision, patience and firmness, but above all, love.

DEBORAH.

### THE SUNDAY DINNER.

Green Pea Soup  
Roast Veal with Dressing  
Delmonico Potatoes Stewed Cucumbers  
Watercress Salad  
Cherry and Apple Dessert

Green Pea Soup.—One quart of shelled peas, two cupfuls of milk, two table-spoonfuls of butter and one of flour, one-half teaspoonful each of salt and white sugar, and half as much white pepper, one quart of boiling water. Wash the pods well when you have shelled the peas and put the pods over the fire in the boiling water, cook fifteen minutes, strain and press the softened pods into the water and return to the fire with the raw peas. Cook until soft, when run through your vegetable press back into the saucepan with the water. Have ready a sauce made by heating the butter and stirring into it in the frying pan the flour. Have the milk hot in another vessel, add the sauce, cook two minutes. Season the pea broth and pour into the tureen. Stir in the thickened milk and serve, pouring upon croutons of fried bread.

Roast Veal.—Remove bones from the meat and fill the cavity with dressing made of two cups of bread crumbs, one-half cup of chopped pork, seasoned with lemon juice, sage and pepper. Follow the directions for roasting beef, allowing more time, as veal needs to be well cooked.

Delmonico Potatoes.—Mix diced potatoes with white sauce, pour into a buttered baking dish, sprinkle with grated cheese and bake 15 minutes in a hot oven.

Stewed Cucumbers.—Pare cucumbers and cut in thick slices. Stew 15 minutes with a small onion, minced, drain, finish with a white sauce and serve.

Watercress Salad.—Wash cress and drain well, chop a green onion, two radishes, one spoonful grated horseradish, and a few leaves of lettuce; season with salt and pepper and plenty of oil and vinegar. This makes a crisp salad.

Cherry and Apple Dessert.—Pare, core and cook the apples until clear, in a syrup made of two cups of water, two cup-

fuls sugar, one slice of lemon, half a finger of stick cinnamon and 10 cloves. When cold fill the centers with cherries, put a large spoonful of whipped cream on top, surmounted by a cherry.

### LETTER BOX.

#### The Rug Question Again.

During the spring of 1910 I paraphrased Hamlet—debating, whether—"To have a rug or not to have a rug That is the question; Whether it is nobler to endure the dust and

Dirt in crevices and corners Or take arms against a sea of troubles And through polished floors to end them."

I finally decided in favor of the rug and had one made that came within nine inches of the base all around the room.

Not wishing to go to the expense of hardwood floors, we purchased linoleum that is a good representation of wood, and as it is fitted nicely with corners mitered, it answers every purpose. After a year's trial I am in favor of rugs in all rooms.

Now I sweep the rug with the carpet-sweeper, and with dry, soft cloth on a long handle purposely made for the work, can soon wipe the margin and the room is clean. The bookcases and heavy furniture that stand near the wall, can be dusted beneath with no trouble and the heavy work of moving them is eliminated.

I can not understand why it is necessary to take a rug out of doors to be cleaned every two or three weeks, if it is possible to allow a carpet to remain on the floor six months, or possibly a year. If a few moments care every day is put upon a room that has a rug covering and the rug be taken out every four months and thoroughly cleaned the room will be in a better state of cleanliness, with less trouble than the same room carpeted. The advent of the vacuum cleaner will exclude even the necessity of removing a rug oftener than twice a year, and one has the consciousness of a room always clean, even to the remotest corner.

I am not an advocate of wide margins

## In Summer—

When the body needs but little food, that little should be appetizing and nourishing.

Then about the best and most convenient thing one can have handy is a package of

## Post Toasties

This food is fully cooked—crisp, delicious and ready to serve direct from the package.

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### THE EVERYDAY COOK BOOK

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Watch for Bargain No. 2 Next Week.



of bare floor, that makes a room look cheerless in winter, but a narrow showing of clean floor outlining a neat rug makes a room attractive at all times, and the trouble of keeping it so is greatly reduced from the old way.

And at house cleaning time the lame backs, bruised knees, and battered fingers are a forgotten quantity and life is made a continual well-spring of delight.—A Subscriber.

#### Make Life Easy.

Dear Editor:—It was interesting to me to hear the real opinions of hardwood floors by those who have cared for them. Now, if we could remember that what is hard for the mistress is also hard for the maid and in our building and planning our work keep the golden rule in mind, it would go far toward solving the "help question."

If we tell of our mistakes it may help someone else. For myself, I have a new house, built by a contractor, an honest man who took a pride in good work, and did more than I expected and more than I wish he had, when I clean the dust from the base boards of yellow pine in the kitchen. It is beautifully glossy, but the grooves or creases are much more work than a plain base, and do not look any better even when they are clean, and they seldom are.

I was in a hospital not long ago and noticed the woodwork there. The base was plain, with a slant on the upper edge, and it looked all so neat and easily cleaned that it impressed me it was just the way it ought to be in our most used

reach the corner squares they are carried diagonally across the space, as in the illustration, and additional threads are thrown across from corner to corner, thus making 32 threads around the four sides, eight from each.

After the filling threads have been properly placed the weaving may be planned as one likes, the pattern shown being a good one where substantial work is desired. Between the clusters where the threads cross in the open square small figures are placed like the one which adjoins the open corner square. The side arms are woven over three threads, the central one and one from either side. The outward branching arms are over the four remaining threads at each side, the weaving covering about the same distance as that on the other arms, and then continuing over the two central threads only for a short space farther. These devices alternate with the more complicated ones placed on the clusters and their crossing threads. For this device weave on the three central threads which project toward the open corner square as far as the adjoining cluster will permit. Run the thread back through the weaving to center, and weave on the same threads in the opposite direction, but only half as far. Now weave small blocks at either side, using the outer one of the trio and the one adjoining which has not previously been employed. Another short distance is then covered on the three central threads alone.

This leaves the outbranching groups and threads, each section from the cen-

other devices, and weave six rows on all of these. Now drop the extra spokes and continue four rows over the balance; drop the two outer ones of these and weave four rows more; then again drop two outer spokes and continue four rows. This leaves only three spokes over which four rows are woven, and the thread run to center. The remaining corner of the square is treated in the same manner.

#### KEEP THE FLIES OUT.

The fly is the great spreader of disease, one of the greatest enemies of humanity, and one of the most dangerous. Many people put in their fly screens early in the spring, or, if they neglect it then, they let the neglect continue, waiting for the next spring.

As a matter of fact, the fly screens that keep out the dangerous insects, and the disease germs that these insects wipe from their feet on your food, are most

important now, in the early year.

Fortunately, the disease germs themselves do not fly. They could pass through the screen as easily as through an open doorway. They reach your children only when larger insects bring them and spread them.

Keep out the bigger insects, the flies, the mosquitoes, and you keep out the invisible, deadly enemies.

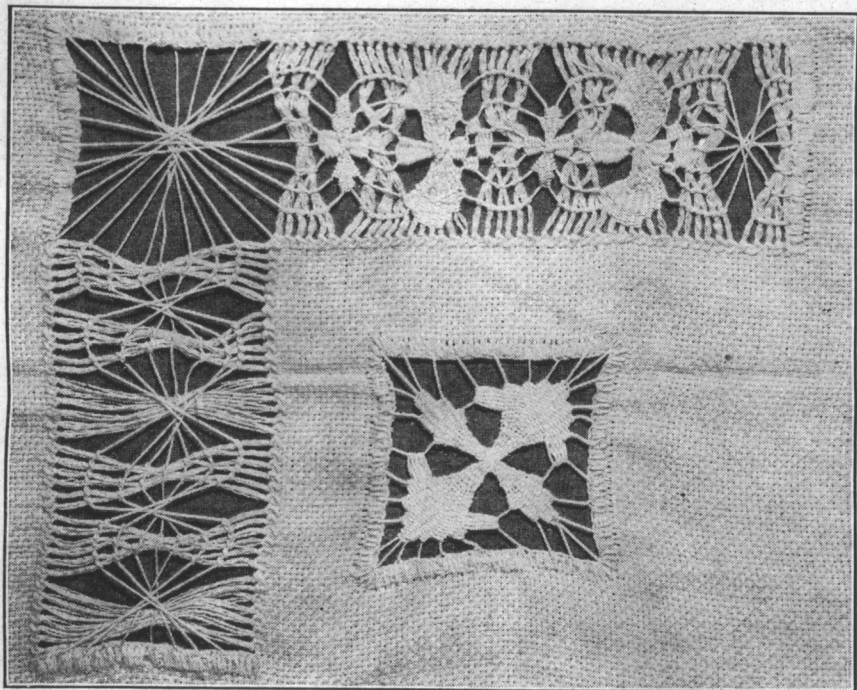
Good fly-switchers can be made by cutting flour sacks into strips to within six inches of the bottom of the sack and winding a string around the rest for a handle. These are not so apt to break things as long wooden handles.—B. M. W.

The time is coming when ants will be a pest. Get two cents' worth of meat scraps from your butcher, lay a piece of raw meat on a plate where the ants congregate most and you will soon find it covered with the pests, as they like raw meat. When covered throw in fire and renew.—Mrs. J. J. O'C.

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FOR VOL. CXXXVI.

From January 1, 1911, to July 1, 1911.



Drawn Work Design.

rooms, at least. The window and door casings were to correspond with no projections to gather or hold dust.

And Mr. Lillie's advice to make the old house comfortable instead of building a new one with a burden of debt is good indeed. Of course, it cannot be done in all cases, but if the truth were told there is many a family that would have had more real happiness in the old home, with freedom from the grind of debt and with a chance for an occasional trip for pleasure or sight-seeing.—O. M.

#### PATTERN FOR DRAWN WORK BORDER.

BY MAE Y. MAHAFFY.

In the drawn work border illustrated it is necessary to draw threads for an inch and three-quarters for the width, the same pattern being available for straight border work or for a border with corners. If corners are made, suitable devices may be fitted in the open squares, one rather pretty one being shown.

One portion of this border is left unwoven, so that the method of laying the filling threads will be clear. One of these threads is used through the center, after the edges are hemstitched into groups parallel with each other, gathering every six of these groups into a cluster. Three other threads are used on either side, criss-crossing back and forth, first between two of the clusters, and then over the third cluster, this process being repeated throughout the space. With the threads adjoining the center thread the clusters are knotted into halves; with the next pair of threads they are again subdivided, making three sections; and the next pair knots each group of the clusters singly. When the filling threads

ter outward being woven over all of these until the small blocks previously placed are reached. At this point the outer thread which was included in the block on the one side is dropped, but all the threads on the opposite side are retained, and the weaving continued a short distance, when another thread on the same side is dropped; the weaving proceeds as before, gradually dropping one thread or group on the same side until only four of the groups and two threads on the far side remain, when the thread is run toward center to fasten off. This produces a sort of butterfly effect which is used frequently by the Chinese drawn thread workers.

For the corner device, shown above by itself, but on the same number of threads or spokes as are laid in the border, the working thread is tied around the spokes at center. Lay the end of the thread along one of the spokes so that it will be woven under and over with it for a short distance until it is sure to hold, when the unnecessary length may be cut away. The weaving proceeds for a few rounds over all spokes, then branches off on seven spokes which run toward one of the corners. Over these weave for a third of an inch, then drop the two outer threads and continue for a quarter of an inch over those remaining. Now drop the two outer threads of this group and continue the weaving over the three central threads only for three or four rows, running the thread back to center to be in position to weave a similar device on the seven threads exactly opposite. After these corners have been filled again start from center, weaving out on nine threads a half inch. Now, instead of dropping threads or spokes take one up at either side previously dropped from the

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