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FARM NOTES.

The Spring Work.

The very early start that was made with the spring work upon most Michigan farms, did not mean the early planting of corn in most cases. The oat crop was gotten in some weeks earlier than common, but the wet and cold weather delayed corn planting until after the middle of May in most sections of the state. Upon the writer's farm, the first piece of corn was planted on May 21 and the last piece was finished the early part of this week. The average farmer in our section planted at about this time and reports coming from various parts of the state indicate that the bulk of the corn crop was planted during the last two weeks of May. However, the early and favorable spring for plowing resulted in the early plowing of the corn ground and a better preparation of the seed bed. This will undoubtedly mean an advantage to the crop as the grass and weeds will not only be better subdued, but a larger amount of fertility will be made readily available and a better seed bed prepared which will undoubtedly insure a better stand of corn than where the fitting is neglected in order to get the corn in when the plowing has been necessarily delayed. And even if the corn crop was not planted as early as was expected upon the average farm, it was in the ground from one to two weeks earlier than last year in most cases, and as soon as the weather was at all favorable for the quick germination of the seed and the rapid growth of the young plants. Considerable difficulty was found in the securing of good seed corn in many cases, owing to the fact that last year's crop matured late. But the importance of good seed is more generally recognized than ever before and we believe that the character of the seed planted this season upon most Michigan farms was such as will insure a good stand and with favorable weather conditions a good crop of corn this year.

The Potato Crop.

Reports are coming in from different sections of the state to the effect that the area of potatoes grown will be reduced this year on account of the poor market which has prevailed for this product during the present season. Whether this condition will prevail the country over or not, can not, of course, be told at this time. If so, it may be a repetition of the old maxim, that "Cheap seed makes dear potatoes." In the writer's opinion, the only way to secure ultimate success with this cash crop is to make it about the same relative factor in the farm production each year. Unlike most other staple products the price received for this product each year must depend upon the production of that year, and its relation to the demand for the tubers. The past season is not the first one in which potatoes have sold for an abnormally low price, nor is this so surprising when one thinks of the shortage last year and the correspondingly increased production which may doubtless be ascribed thereto. The writer will grow his usual area of potatoes this year and fertilize them in the same liberal manner, past experiences having shown that, one year with another, this is the most profitable course.

Another factor which should be considered in planting this year's potato crop is the kind of seed that is used. The average farmer will not plant many marketable potatoes when they are selling at from 50 cents to \$1.00 per bushel, as was the case last year at planting time. But when they are selling at 10 to 20 cents per bushel, there is no good reason for planting poor seed and this is the time when a larger quantity of seed per acre should be planted, as it has been shown

by frequent experiments at different stations throughout the country that better yields are secured where a liberal quantity of seed is used, it being found in many cases that the most profitable yields were secured when from 16 to 20 bushels per acre were planted. Whether the seed should be cut or planted whole is one of the questions which will ever recur among potato growers and which can never be settled to the satisfaction of all of them. But here again, under normal conditions experiments seem to indicate that it is more profitable to plant a liberal amount of seed. For this reason the writer will

which is right. Now, this is another one of those questions which ought to have been definitely settled years ago, but which will keep bobbing up, as each younger generation receives the idea from its elders. The theory upon which this idea is based is, that if the crop is planted at such time as will bring it to maturity during the period of the full moon that it will mature a better crop than would otherwise be the case because of the beneficial effects of the light of the full moon in the ripening of the crop. This, however, has been proven to be a fallacy and the best time to plant any

seed, but in the value of the hay crop as well, where clover hay is cut comparatively early. It should not be allowed to stand until a considerable portion of the blossoms are turned brown, as is the too common practice upon the average farm. Undoubtedly most of our hay is allowed to get too mature before it is cut. The feeding value of our hay will be very much more enhanced by cutting it early, before the stems have developed too much woody fiber. Not only will its feeding value be greater, but it will be more palatable and eaten better by the live stock of all kinds, so that there will be much less waste in feeding it. Then, where it is cut comparatively early, the second crop comes right on rapidly, while if allowed to stand too long, the new buds will start up from the crowns of the plants and the tender stalks will be clipped off in mowing the hay, so that it will take much longer to get a start than would be the case if these buds would come on and grow in the natural way, as they will do where the clover hay is cut early.

The Crop Rotation.

I have six acres of medium sandy soil, covered with a light sod, where the pasture is mostly killed off. I am putting about 60 loads of fairly well-rotted horse manure on it. Will this produce as good a crop of corn as cow manure? Will it leave the ground in as good a condition for potatoes as cow manure would?

Wayne Co. M. W. L.

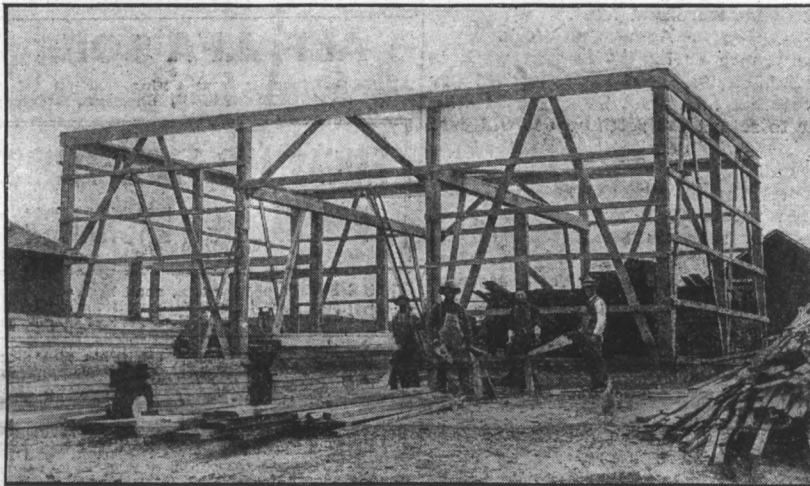
Ground fertilized as described in this inquiry should produce a fairly good crop of corn. The kind of stable manure applied does not particularly effect its value for the crop planted this or the succeeding year, although horse manure, particularly if well rotted as described, will nitrify or decompose into soil humus more rapidly than other kinds. It is, however, not particularly good practice to plant potatoes following corn in the crop rotation, unless provision is made for maintaining both the supply of humus or vegetable matter in the soil and available plant food for the growing crop, which, in this case, could be done by sowing rye as a cover crop in the corn and applying another dressing of stable manure during the winter or spring before the ground is plowed for potatoes, or by using a liberal application of commercial fertilizer for the potatoes after the ground is plowed. Unless such practice is followed, it is not a good plan to grow two cultivated crops in succession upon the same field.

THE CORN CROP.

Our corn was in the ground May 16, after which we turned our attention to getting in the potatoes. Then came on rains, so we have not been able to harrow the corn fields yet. In the one first planted the corn is just coming up. Last year a spell of wet weather at about this time prevented working the corn fields until the corn was several inches high. We like to harrow the field a couple of times with the spike tooth just before the corn comes up so as to put the weeds back and give the corn about a week the best of the weeds, then the cultivator can be started before they are too large to cover up, but of course we must be governed by the season.

I think there are two things more than anything else that contribute to a poor corn crop, the first is a failure to get into the field soon enough after planting, and the second is a failure to stay there long enough. Of the two practices, I believe the first is the worst. It invites extra work or partial failure, while the neglect to cultivate long enough will do no harm if there is plenty of moisture during the summer.

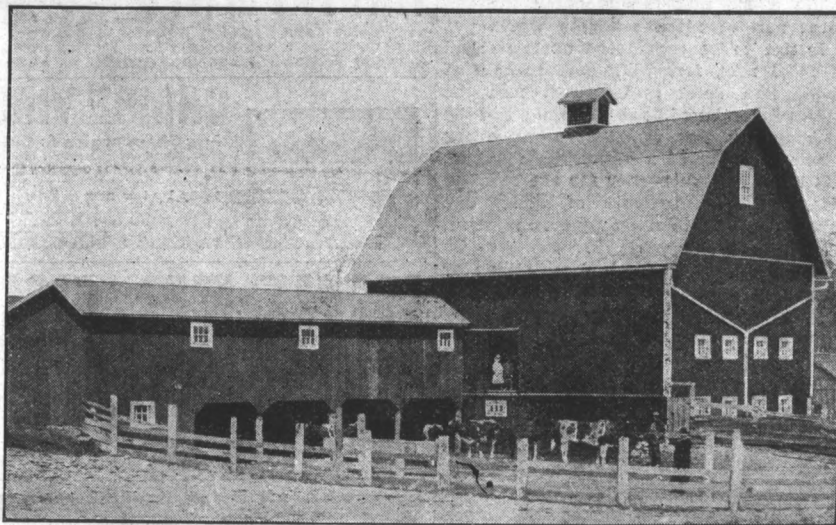
After the harrowing and as soon as the



A Simple Type of Plank Frame Barn in Process of Erection.

plant as large seed as will conveniently pass through the hand planters used, which will make it unnecessary to cut any but the very largest of the potatoes used. There seems to be about the usual interest manifested in the treating of seed for scab. Where there is any considerable amount of scab present in the seed, however, this should not be neglected since it is both cheap and effective. When large quantities are to be treated, the gas method previously described in these columns may be profitably employed. But for the average area and quantity of seed

crop is when the weather and soil conditions are best and when the seed bed is properly fitted so that the seed will germinate quickly, the young plants develop rapidly, assuming, of course, that it is planted at such time as, in the average season, will bring it to maturity at a time of year when weather conditions may reasonably be expected to be favorable. For instance, the bean crop should be planted early enough so as to insure its ripening before frost and preferably before the fall rains usually come, since this will favor the saving of the crop in



Up-to-Date Farm Barn of A. M. Prosser, of Oceana County.

simply soaking the seed in a solution made by adding one pound of commercial formaldehyde to 30 gallons of water and soaking the seed one and one-half hours in this solution before cutting will prove most economical and satisfactory.

When to Plant Beans.

We are in receipt of a letter bringing up the old question of the moon in relation to the planting of beans, the inquirer stating that some advised him to plant before the full of the moon, and others to plant at the old of the moon, and asks

the best condition. The farmer who gives the most heed to conditions such as above noted, will be likely to have far better success in growing maximum crops than will the farmer who pays attention to the phase of the moon when the seed is put in the ground.

When to Cut Clover Hay.

When is the best time to make clover hay to obtain the best results for seed? Lenawee Co. F. W. D.

Best results are secured not only in the prospect of getting a good crop of clover

rows can be followed, we like to cultivate with a rather small shovel, using guards to protect the corn and going as close to it as possible, which is quite close if the rows are straight. Then if the ground is in the right condition one can clean out the weeds, starting in the hills with a horse weeder, if not the ground can be pretty well cut by crossing with a cultivator if the corn is in hills. By the way, I think this is the best way to plant and notice that a large number of farmers are discarding the drills used a few years ago. On large farms and in certain neighborhoods the check rower is much used, and in careful hands does quite accurate work, almost as rapidly as a drill. Small farmers can use the hand planter or rent a check rower.

The second time through the field I like to let the cultivator go in pretty well, say four or five inches, if this does not tear up the sods. Then the succeeding cultivations can grow more shallow as the roots spread out, the shallowest being after harvest, when we go through with a fine-tooth cultivator, once in a row, and stir the soil within about six inches of the row.

Calhoun Co.

S. B. H.

A CEMENT GRANARY.

I noticed an article in The Farmer some time ago, in which it was said grain could be kept in a cement granary, providing the last coat was properly mixed. Some time ago, when I built my barn, I put a cement floor in the granary. There was also a stone wall along one side. I found after trying this that I could not keep grain in good condition. Now I would like Mr. Lillie's advice in regard to this matter.

St. Clair Co.

A. F.

A number of years ago my father built a solid wall brick granary. The bricks were laid in common lime mortar, then it was plastered on the inside with common lime mortar. The intention was to use no covering of wood on this plastered wall. This granary was built in August and was hardly thoroughly dried out before threshing time when grain was placed in. The grain gathered dampness from the wall and some of it molded. The next year I lined the inside with matched lumber in the bins to keep the grain away from the wall. Since then, of course we have had no trouble in this respect. The floor in this granary originally was supported by joists, but they dry-rotted and the floor broke down. Then I took out the joists and put in rock elm sleepers. After a few years they also dry-rotted and broke down. Then I cleaned the whole business out and filled it up with sand and stone and put a cement floor in. But I was afraid to put grain on this cement floor, so I covered it over with boards. Later on the yield of grain increased so that we had to use what was formerly an alley in the granary as a bin and this was not lined with lumber when grain was put into it. So far as I know, none of the grain has gathered dampness and molded when it came in contact with this side. Last winter this bin was filled with peas and oats and they remained in there, some of them until this spring, and there was no mold or gathering of dampness. I have talked with a number about this condition and they claim that the reason why the grain molded in the first place was because the brick wall was not thoroughly dried out and the grain gathered dampness from the wall. That if the granary had been built earlier and had been thoroughly dried out before the grain was put in, that there would have been no damage. Using this last bin without any damage seems to corroborate this theory, and I have been told that elevators are built with cement floors and cement bins and used for the storage of grain with no loss from this cause. I don't like to take down the board lining against the walls of the granary for fear the grain will spoil and so I leave them up. I am of the opinion that if the granary was plastered on the inside with a rich coat of cement mortar that it would be practically impervious to water and grain would keep after the wall was once thoroughly dried out, but from actual experience I do not know.

COLON C. LILLIE.

MAKING GOOD CONCRETE.

Placing of Concrete.

It is a mistake to throw the concrete from the mixing platform to the wheelbarrow and from that to the space to be filled; when you throw a shovelful of concrete the pebbles are heavier than the sand and cement and hence they are positive to separate from the mass and travel faster, thus when it has settled into place the large aggregate is at the

bottom with the fine particles upon top and the uniform density is lost.

Concrete should not be thrown or dropped into the forms at a distance of over three feet, for the above reason, and the laborer who persists in so doing is damaging your work, for you cannot secure strong concrete of a uniform density unless it is placed in a manner that will not separate the various particles from each other.

Another cause of weak spots in your wall is the lack of proper tamping, many consider that as the concrete is heavy, it requires little or no tamping and will settle into place of itself; this is far from the fact and every four inch course should be tamped evenly and thoroughly; in fact, the more pressure you exert by tamping the greater the density of the wall and this is an important aid to strength.

Finishing the Work.

The main objection to a coarse mix is the rough surface. This is overcome by using a finishing coat mixed with a greater proportion of cement and finer sand; this should not be over one inch thick and is better one-half to three-quarters and while it does not add to the strength of the work to any great extent, it is capable of a finer finish.

Again, to use a coating of neat cement, made by mixing plain cement in water to the thickness of cream and applying with a brush is an aid to a neat finish and also to making the wall more weather-proof, as the neat cement brush coat fills in all the little minute pores and thus seals the wall against the penetrating effect of moisture and frost.

Curing or Aging the Work.

The proper curing of cement work is essential, as upon a hot day it will dry out too fast and must be sprinkled with water to retard the setting so it will cure more slowly, otherwise it has a tendency to crumbling.

Properly made concrete makes its initial set within 30 minutes to one hour. From that time until it is 28 days old it does not complete the permanent set and while it is hard enough for some uses yet it has not accomplished the final and permanent hardness. If your work dries out quickly and in a few hours cannot be dented with the fingers, it is drying too fast and water should be sprinkled over same; you are safe in applying water if the concrete cannot be dented with the fingers within five hours, for as much damage is caused by too rapid drying as by any other cause.

The atmosphere must determine the sprinkling, when a damp, cloudy day the work will dry slowly and have greater strength; if a dry, hot day then sprinkle within six hours and once or twice a day for the first two weeks if the weather is such that the water dries off the work rapidly. After the work has attained its initial set and become hard enough so as not to dent easily, the water you apply will not injure, even if too much, so you need have no hesitation in wetting the work often.

Some Useful Hints for the Concrete Worker.

While a 1:6 mix is advocated for the general run of farm concrete work, yet this is not to be considered as the equal of a 1:2:4 mix, for, while one sample of the pit run sand and gravel may be evenly proportioned, yet it could not be expected to be that way in the entire pit; but as the labor of grading the material would be too much bother for the average farm job, the substitute of using one Portland cement to six of pit run gravel is generally employed.

In large walls, as barn foundations or in any wall of eight inches in thickness, a very great saving may be effected by using cobblestones running from two to six inches in diameter. Have these wet thoroughly so as to cleanse them of every particle of dirt; also, so that they will be wet when placed in the wall. The best method of placing is to lay a course of the stone on top of each four or six inch course of concrete and tamp down with same, thus imbedding the stone firmly into the concrete. Where the stone is to be secured upon the farm this will make a material saving in the cost and without injuring the strength.

Use only a standard brand of cement; be positive that it has been stored in a dry place and is free from lumps; your property and even your life may depend on the quality of this cement and the brand that is just a little cheaper cannot weigh in the scales against the issues at stake.

Wayne Co.

A. A. HOUGHTON.

It is not too early to see that the haying tools are in good order.

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LIVE STOCK

GROWING THE HOG CROP.

It Pays to Treat the Hog "Like a Gentleman."

Several hundred head of hogs are fed and raised by the writer in the course of the year. It is a complete departure from the faith and it must be confessed that the hogs, which were once first in our affections, have now been relegated to third, in the language of the base ball world. Hogs are first, sheep second and cows as stated above.

A populist member of the legislature boarded the Rio Grande train one day at Gunnison, Colorado, and was greeted by a former acquaintance from Ohio as to why he left that good old state. The legislator, in strictly unparliamentary and very profane language, said it was the cows that drove him out of Ohio. Every morning and every evening those seven cows, and the adjectives did not stop at the seven, and still more cuss words on the days of the week, those cows had to be milked. A good Ohio man had gone wrong and from the state all on account of the cows. Fake feeds, robber cows, butter-fat tests, milk processes, good, bad and indifferent bacteria, all are the concomitants of the dairy and are what my automobile friend calls, "The upkeep of the cow." The hog from all these, including the visits of the inspector, is largely immune. The hog is much like human kind, if well fed and well treated a very decent sort of animal. If not so

of the hogs in the matter of feed and care. The Michigan Farmer would not print what they have said when some cow, treated like a lady, has not acted lady-like. When each day's low descending sun sees at our hand, some 100 pounds or more of added weight to a bunch of porkers at the present prices, it is a worthy deed well done. Several tons of well weathered soft coal are used each year and it is fed ad libitum. The real merits of slack coal, lime, salt, sulphur and iron sulphate are like the quack doctor's medicine in the fact that if it does no good it does no harm, and the hogs seem to like it. An occasional dose of turpentine in the milk is given for internal parasites. For external cleansing, while the hogs are at feed, they are anointed with perhaps a half pint of pale paraffine oil, a thin, clear, lubricating oil and quite as cheap as crude oil. For animal wounds this oil, with a small addition of any of the kresol dips, is a standard remedy. The use of oil on hogs kills lice, and loosens the scurf at the same time, and is also a fly repellent. Before farrowing time my friend, the meat market man, the agent of the trusts and the cause of high prices, is supplicated to save several hundred pounds of lard waste, scrap or cracklings, whatever it may be called locally. This is a preventative of cannibalism in sows. I suppose, on the theory of medicine that like cures like. This form of race suicide is the cause of a serious percentage of loss in the swine business. Creeps are provided for the small pigs where they can crack shelled corn and drink milk.

Plenty to eat, clean and dry housing and pure water are among the essentials



One of a Bunch of 18 Steers Fed by Frank Price, of Barry County, which he Sold to the Shipper for 8c per lb., the Lot Bringing a Total of \$1,940.

well used he has all the vices of carnivori and the herbivori, which, in Indian language, is a very "ornery beast."

Sixty feet of cement troughs, not iron-stone china, but just as good, are filled with separator skim-milk and breakfast food, to make the first course. This breakfast food is a by-product secured from one of the Battle Creek cereal factories. One of the precepts of cow keeping is to treat the cow like a lady. Hogs should be treated like gentlemen in the matter of their meals. While their breakfast food is being put in clean troughs, the hogs remain outside, discussing the coming event. When the dining room doors of the hog hotel are opened, there is the appearance of rush that marks human kind hastening to a dog fight. For luncheon plain corn on the ear and tankage, a sort of "chop suey" for hogs. This popular hog food contains much that heretofore went into canned meats and pemmican for Arctic explorers and corresponds to cold meats on the table. Dinner, the final meal of the day, is largely the breakfast and luncheon courses added. Mud baths are provided by piping water into the field. These baths are very popular among obese hogs of sedentary habits, and are modeled after the celebrated French Lick Springs. This hog watering place is much resorted to during the heated season. The hogs drink the cool water as it flows from the pipes, take a plunge and then come up to the hog hotel and wait around for the evening meal just like human resorters. For their evening meal a solid, substantial dish of cooked beans has been tried but truth compels me to say that, while hogs will eat beans they are not enthusiastic over them. I like enthusiastic hogs, and do not propose to have the cow men outdo me in the matter of attention to a satisfactory ration, and have omitted the beans. Employees are loud in their praises

of hog raising. Pigs are a cleanly animal when young, in fact, much more so than calves or lambs. So attractive is a large bunch of little pigs at meal time that the city folks in their automobile stopped and displayed the bad manners of looking on while the other folks were eating.

We Michigan people have something to learn in the way of curing pork, from the people of the south. Well cured, smoked meats are a delicacy, as compared to pickled pork. The farm home that has bacon and ham has at hand always the foundation of a meal that cannot be surpassed at any cafe or hotel in the world. I am not sure but one of the causes that has driven boys from the farm has been the white, dyspeptic-producing product from the pork barrel, and the gravy therefrom, which is supposed to be used on potatoes to save butter. The substantial meal that comes from ham or bacon and eggs, needs perpetuation in poetry, like the remembrance of the "Old Oaken Bucket." While the delicate slices of boiled ham, served cold, are the choice of the epicure, they are possible on all farm tables. Fresh pork is an abomination in hot weather and cured smoked meats the acme of delight.

Shiawassee Co. JAS. N. McBRIDE.

SHOEING DRAFT HORSES.

If one is not careful he can run up quite a shoeing bill on a farm team during the year. Many farmers whom I know make a practice of keeping their draft teams shod all around throughout the entire year. When doing ordinary farm work, this seems like an unnecessary expense. While doing farm work the ordinary horse is usually as well, if not better, off when unshod than when he is shod. As long as their feet keep in good condition without shoeing we leave them in that condition. Of course, when their feet get worn

IF YOU NEED A MEDICINE, YOU SHOULD HAVE THE BEST.

Although there are hundreds of preparations advertised, there is only one that really stands out pre-eminent as a remedy for diseases of the kidneys, liver and bladder.

Dr. Kilmer's Swamp-Root stands the highest, for the reason that it has proved to be just the remedy needed in thousands upon thousands of even the most distressing cases.

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In order to prove what Swamp-Root, the great kidney, liver and bladder remedy, will do for you, every reader of the Detroit Michigan Farmer who has not already tried it, may receive a sample bottle by mail absolutely free. Address Dr. Kilmer & Co., Binghamton, N. Y. Write to-day.



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I simply want an opportunity to show you on your stock BEFORE you pay me a cent, exactly what

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The Great Worm Destroyer and Conditioner

will do for them. I want you to know from actual experience, before you pay, how surely it rids them of worms—the cause of 90 per cent of diseases and deaths—how quickly it will stop your death losses, especially among lambs, sheep and hogs; how it saves feed; puts stock in the finest condition—makes them thrifty, healthful and profitable. Sal-Vet is a medicated salt, which is put where the stock can get it at will, and they doctor themselves. No drenching.

Prof. C. S. Plumb of the Ohio State University, College of Agriculture, Dept. of Animal Husbandry, writes:

"The 'Sal-Vet' which you sent us has been used with excellent satisfaction. While we have no definite information as to the absolute effect on our sheep, they consumed the preparation with results which appear to us to corroborate your statements that it is desirable material for discouraging the development of worms, and keeping the sheep in good condition."

I believe that "Sal-Vet" will repay the user in the results which come from its action in his flock."

Send Me No Money

All I ask is a chance to prove my claims. You have nothing to risk—everything to gain so send in the coupon today.

Sidney R. Fell, Pres.
The S. R. Fell Company, Dept. M.F.
Cleveland, Ohio

Prices: 40 lbs. \$2.25; 100 lbs. \$5.00; 200 lbs. \$9.00; 300 lbs. \$13.00; 500 lbs. \$21.00



down closely through road work we hie them to the shop, but otherwise we dont. In winter when it is icy and somewhat dangerous on the road we always aim to keep one team calked up well in front, even if not behind. What we need is less shoeing in summer, and more careful shoeing the rest of the time. Our draft horses are shod too carelessly by the average shoer. We must watch them more closely.

Ohio.

CLYDE A. WAUGH.

RUNNING PIGS ON CLOVER.

Even at present prices it is essentially to our interests to produce pork as cheaply as possible. Simply because hogs are selling at record prices we cannot allow the cost of production to creep up alongside the increased selling price. It should ever be the aim of the hogman to have the hogs and the methods which will enable him to produce a pound of pork with the smallest outlay consistent with good gains.

It has always been our opinion that the cheapest pork can be produced on clover pasture, when it is used in conjunction with some supplemental feed. Clover furnishes cheap protein, allows the hog to exist in what approaches his natural condition, keeps him fairly healthy, matures your field and saves a great deal of labor.

We have found that most of our profitable litters are those that are farrowed about the time the sows can be turned on pasture. It is an easy matter to take a roll of hog fencing, stick in a post every seven or eight rods, and to stretch up your fence. It can be done in half a day. Several litters of pigs can be run in a few acres.

After suckling a few weeks the sows can be reduced to a ration of a few ears of corn a day. Before this a few troughs can be placed so as to admit the pigs and keep out the sows, when the pigs can be given snorts and other feeds.

Handled in such a manner you have fair sized shoats when the new corn crop is ready to be fed. Then, a little green corn can be used to advantage. However, by the time the corn is ready, the shoats will stand quite a heavy feeding while on the clover. By so doing, the spring pigs can often be turned off after running behind steers on a very short feed which begins early in the fall. Two years ago we turned a bunch of shoats so raised, in a corn field with the older hogs. When the piece was hogged off part of the spring pigs went to market.

As a further proof of the profit in clover as a hog feed, I will mention our experience of last summer. When the clover pasture was ready we turned in 175 pigs, averaging 97 lbs. apiece. They had the run of 15 acres of clover and a small amount of wood pasture. Throughout the summer they received a gradually increasing amount of ear corn. When the new crop was fit, we fed green corn until the other was sufficiently matured when we hogged down 12 acres, charging up the clover pasture at \$15 per acre and all other feed at full market price, the transaction yielded us a net profit of \$981.

Ohio.

CLYDE A. WAUGH.

"INTERNATIONAL" NEWS ITEMS.

The International Live Stock Exposition Association directors held their spring, or classification meeting, May 19, 1910, in the rooms of the Saddle and Sirloin Club, Union Stock Yards, Chicago.

It was decided to hold the International Horse Show from November 22 to 26, while the International Live Stock Exposition is to cover the usual period, November 26 to December 3, 1910.

It was found that practically all the live stock associations had increased their appropriations for special prizes to be offered in connection with this year's show.

To recognize our breeders, as well as our feeders, two additional beautiful silver trophies will be offered by the Exposition; one to the breeder of the grand champion carload of fat cattle, and another to the breeder of the grand champion carload of feeder cattle of the show.

A new rule was adopted requiring a three months' ownership of at least 12 of the cattle constituting each carload entered in the first carload classes, making it necessary to have the exhibitor make affidavit to this effect and to have this affidavit accompany the entry.

It was decided to follow the custom long established by our State Fair Associations, by uniting the Percherons and French Drafters in the same classification.

One Cup-Full of Sugarota Makes One Gallon of Milk Substitute for Young Live-Stock



A FEED FOR EVERY NEED

Sugarota Feeds are specialized each for its specific use. Each brand is balanced for its feeding purpose and tested out in feeding practice on our experimental farm. Beginning with

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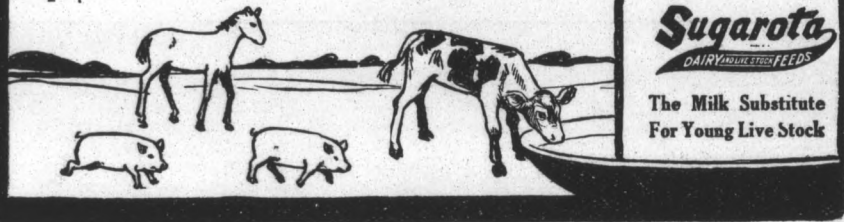
you have a perfect milk substitute, not only for calves, but for all young stock. It is a malted food as carefully prepared as baby food for the child. It is the

Only Perfect Live Stock Baby Food

Costs one-fourth as much as milk for calf feeding. The greatest money-saving feed on the dairy farm.

Sugarota Dairy Feed is guaranteed to produce better results than any other dairy feed, manufactured or home mixed. The guarantee also applies to Sugarota Swine Feed, Sugarota Cattle Feed, Sugarota Horse Feed, Sugarota Sheep Feed, Sugarota Scratch Feed and Sugarota Chick Feed.

Write us for booklet on raising calves without milk.
North-West Mills Co., 523 W. Third St., Winona, Minn.



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THE EARLY & DANIEL CO., Cincinnati, O.
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BUTTER COSTS TEN CENTS Official Connecticut Record, Jersey Cow Brutus Countess Dewdrop made 1 lb. butter for each 4 lbs. UNICORN DAIRY RATION at total cost of 10 cents per lb. and Jersey milk at 1 c. per qt. Send for sample, records, etc. CHAPIN & CO., Milwaukee, Wis.

H-E-C Medicated-Tonic STOCK SALT

The Great Worm Exterminator for Worms in Horses, Sheep, Hogs and Cattle.

Regulates the Stomach, Kidney, Liver and Bowels. Put up 5 lbs. 25c; 10 lbs. 50c; 20 lbs. \$1; 50 lbs. \$2.50. Ask your dealers everywhere.

Jackson Grocery Co., Jackson, Mich. (STATE AGENTS.)

Do you know that your animals are taking up from the pasture the germ or egg of the worms that will breed and develop during the winter months. Kill the germ in the stomach, this can be done by feeding H-E-C Medicated Tonic Stock Salt in the pasture. For sale by all Grocers and Druggists.

H. E. COBB CO., Brooklyn, Michigan.



Ridgling Castration a Specialty. Write for circular. Work guaranteed or no pay. Am a graduate of Farmer Miles School of Veterinary Surgery. HENRY H. PERRY, V.S. R. F. D. No. 1, Morenci, Mich.

I HAVE FOR SALE a registered Percheron Stallion colt coming one year old June 11th. Sired by Brilliant IV 47531 (61771) and out of HAZEL KIRKE 33998. Bell Phone 124-2. WELLS W. GARDNER, Fenton, Mich. R. R. No. 2.

For Sale—Horses, Cattle, Sheep, Hogs, Dogs or Poultry, nearly all breeds. Sires exchanged. Southwest Michigan Pedigreed Stock Association, R. E. Jennings, Sec., Paw Paw, Mich.

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN-ANGUS.

Herd headed by UNULATA BLACKBIRD ITO 83836, one of the best sons of PRINCE ITO 50006, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907, 1908 and 1909. Herd consists of Ericas, Blackbirds, Prides, etc.

WOODCOTE STOCK FARM, Ionia, Mich.

Ayrshire Bull Calves. Berkshire swine. Eggs for setting. High bred stock. White & Buff Oringtons, White & Barred Rocks, Light Brahmas, White Leghorns and White Wyandottes \$1 per 15. Mich. School for the Deaf, Flint.

Angus Bulls. Polled Durhams, Hampshire, Cotswold, and South Down Rams on sale at Clover Blossom Farm, Port Austin, Mich.

GUERNSEYS—BULL CALVES. Herd tuberculin tested. ALLAN KELSEY, Lakeview, Mich.

Maple Ridge Farm Breeders and Importers of high class Guernseys. Write us your wants. E. & J. T. MILLER, Birmingham, Mich.

FOR SALE—Young herd of Holstein calves—the oldest established herd in Ind. W. C. JACKSON, 715 Rex St. South Bend, Ind.

TOP NOTCH HOLSTEINS.

Top Notch registered young Holstein Bulls combining in themselves the blood of cows which now hold and have in the past held World's Records for milk and butter-fat at fair prices.

McPHERSON FARMS CO., Howell, Mich.

CHOICELY BRED HOLSTEIN-FRIESIAN Bull Calves at sensible prices. Cole Bros. Ypsilanti Farms, Ypsilanti, Mich.

HOLSTEIN FRIESIANS—Bull calves. Herd headed by Canary Mercedes Royal King. W. B. Jones, Oak Grove, Mich.

5 Holstein Service Bulls For Sale.

Any one of which have breeding and individuality that qualifies them to head any herd. Bull calves and a few good cows.

L. E. CONNELL, Fayette, Ohio.

HOLSTEIN BULL CALF from two best families of the breed. C. D. WOODBURY, Lansing, Michigan.

HEREFORDS:—Both sexes and all ages for sale. Also Poland-China hogs. R. E. ALLEN, Paw Paw, Mich.

LILLIE FARMSTEAD JERSEYS

We have some splendid young bulls for sale. Some of them are old enough for service. They are from cows with records of 300 to 425 pounds of butter last year. Write for description and prices.

COLON C. LILLIE, Coopersville, Mich.

JERSEY BULL CALF born October 4th '09. Dam gave 9,386 lbs. milk in one year, test 5 to 5 1/2%. Sire's dam's record 10,080 lbs. milk in 10 1/2 months test 5 1/2-10 per cent. The Murray-Waterman Co., R. D. 6, Ann Arbor, Mich.

FOR SALE—12 registered Jersey Cows of St. Lambert and Island blood, from 2 to 10 years, all fresh or nearly so. Price \$100 each if taken at once. C. A. Bristol, R. F. D. 5, Fenton, Mich.

AUCTION—Closing out Linden Lea Jersey Herd, June 14th. Catalog free. H. S. CHAPMAN, Cassopolis, Michigan.

FOR SALE—Jersey Bull Calves from 3 to 9 mos. old. Fine thirty fellows and from extra good cows. A. Newman, Mariette, Mich. R. F. D. No. 1.

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

Register of Merit Jerseys. Official yearly records. T. F. MARSTON, Bay City, Michigan.

NORTHERN GROWN JERSEYS WITH BIG MILK RECORDS. TUBERCULIN TESTED BY STATE VETERINARIAN. ROYCROFT FARM, Sidaaw, Mich.

DAIRY BREDSHORTHORNS—No stock for sale at present. Visitors welcome. J. B. HUMMEL, Mason, Mich.

BIDWELL STOCK FARM. **FOR SALE**—10 Reg. Shorthorn Bulls. All good, reds and roans, from 12 to 24 months old, from the best of breeding at \$75 to \$125 each. Some of them Scotch and Scotch-topped, of the herd heading type. Also, young cows and heifers, all ages. Fifty head in herd. Farm—Two blocks from Lake Shore Station. L. I. BIDWELL, Tecumseh, Michigan.

SHORTHORN cattle of both sexes at reasonable prices. I breed for both milk and beef. Come or write. T. M. SOUTHWORTH, R. No. 13, Box 73, Allen, Mich.

SHEEP.

Oxford-Down Sheep and Polled Durham cattle for sale. A. D. & J. A. DEGARMO, Muir, Mich.

OXFORD DOWNS A few good field rams for sale. H. J. De GARMO, R. No. 1, Clyde, Mich.

PARSONS OXFORD RAMS also registered Hornless Delaines grade X \$15; XX \$20; XXX \$25. Romeyn C. Parsons, Grand Lodge, Mich. Michigan's largest breeder of good sheep.

SHROPSHIRE HALL STOCK FARM Will import one hundred yearling ewes and 15 rams in June for Michigan and the same for Boise, Idaho, Branch of this Farm. Will make a fair price on yearling ewes or rams, also on some aged ewes with lambs at side, for 60 days.

L. S. DUNHAM & SONS, Concord, Michigan.

130 Reg. Ramboulet Ewes for sale, descended from the best flocks and bred to a pure Van Homeyer and a ram sired by a Gilbert ram and imported dam. All in perfect health. In lots to suit buyers—none reserved. J. Q. A. Cook, Morrice, Mich.

HOGS.

LARGE ENGLISH BERKSHIRES.

Have fine lot of spring pigs of both sexes. Few young sows for fall farrow. Vigorous and strong, the type for profitable pork production. Satisfaction guaranteed. F. A. BYWATER, Memphis, Mich.

HUPP FARM BERKSHIRES! **WON 189 PRIZES IN 1909.** Stock of both sexes and all ages for sale. Breeders of Guernsey Cattle, M. B. Turkeys, Barred Rock Chickens, Pekin Ducks. GEO. C. HUPP, Mgr., Drawer A Birmingham Michigan.

BERKSHIRES Unexcelled in breeding. Selected boars, sows and gilts. Choice fall pigs. T. V. HICKS, R. No. 11, Battle Creek, Mich.

HIGH CLASS LARGE ENGLISH BERKSHIRE PIGS, either sex. W. J. ROSS, Rochester, Michigan.

BERKSHIRES of the most fashionable type and strains. C. S. BARTLETT, Pontiac, Mich.

NORTHERN GROWN BERKSHIRES. ROYCROFT FARM, Sidaaw, Mich.

DAMS BROS. Litchfield, Mich., breeders of Improved Chester White and Tamworth swine. Pigs, either bred, by 1st prize State Fair winners. Buff Rock, Buff Wyandotte eggs \$1 per 15; W. Orington \$2 per 15.

Berkshire—A few choice fall gilts bred for early farrowing and a choice lot of Spring Pigs with prices right and the right breed. A. A. Fattullo, Deerperville, Mich.

Improved Chesters—Sows bred for Aug. and Sept. farrow. Choice March and Apr. farrow, either sex also W. Wyandotte Eggs \$1 for 15. W. O. WILSON, Okemos, Mich. (Both Phones).

PURITAN HERD OF CHESTER WHITES The peer of any in America. Spring pigs for sale. WILL W. FISHER, Watervliet, Michigan.

DUROC JERSEYS. CARRY U. EDMONDS, Hastings, Mich. Nothing for sale at present.

DUROC JERSEY HOGS of all ages for sale. Pigs in pairs not akin, ready to ship. Meadowbrook Seed Farms, Williamsport, O.

DUROC JERSEY SWINE. Shepherd Dogs. B. P. Rock eggs \$1 for 15. J. H. BANGHART, Lansing, Mich.

WALNUT HILL FARM Herd of Durocs. Bred sows all sold. 35 fine fall sows, 15 fine fall boars ready for service. 100 spring pigs to date. Write J. C. Barney, Coldwater, Mich.

O. I. C. bred sows all sold. Have a few boars still on hand. GEORGE P. ANDREWS, Dansville, Mich.

O. I. C. REGISTERED PIGS, 10 to 12 weeks from World's Fair winners. Glenwood Stock Farm, Zeeland, Mich. Phone 94.

O. I. C.—Orders booked for spring pigs from State Fair winners. C. J. THOMPSON, Rockford, Mich.

O. I. C. Spring Pigs For Sale, 14 choice boar pigs and 17 choice sow pigs. Satisfaction Guaranteed. Fred Nickel, Monroe, Mich., R. No. 1.

30 P. C. Fall Pigs—by two champion boars. Book orders for weaned pigs by 10 different boars. WM. WAFFLE, Coldwater, Mich.

HEAVY BONED POLAND-CHINA PIGS at reasonable prices. Eggs from big, business Barred Rocks \$1 per 15. ROBERT NEVEY, Pierson, Mich.

MICHIGAN'S GREATEST HERD of big Poland-China Hogs. Big Bred, Long Bodied, Big Litters. The farmers' hog. A bigger, better and more prolific Poland-China. Write for what you want. Bell phone. J. C. BUTLER, Portland, Mich.

FOR SALE—4 P. C. boars ready for service. Eggs for hatching & prize winning Regal White & Columbian Wyandottes, Zach Kinne, Three Oaks, Mich.

POLAND-CHINAS—Fine lot spring pigs now ready to ship. WOOD & SONS, Saline, Mich.

P. C. PIGS Singly or in pairs not akin. Minorca eggs \$1.50 per 15. R. W. MILLS, Saline, Michigan.

Poland Chinas—Boars, Gilts and Pigs of quality at the right price. B. M. WING & SON, Sheridan, Michigan.

Large Improved English Yorkshires. The hogs that make good. September gilts bred to farrow next August or September. Spring pigs of either sex. Pairs not akin. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich.

ALWAYS mention the MICHIGAN FARMER when you are writing to advertisers.

ENFORCEMENT OF THE TWENTY-EIGHT-HOUR LAW.

Department of Agriculture to Bring Test Cases.

A controversy has arisen between some of the railroads of the country and the larger live stock shippers in regard to the space in the cars which must be afforded animals in transit from one state to another in order to make unloading unnecessary and still comply with the twenty-eight-hour law. This law provides that when the animals are carried in cars "in which they can and do have proper food, water, space, and opportunity to rest," they shall not be required to be unloaded. The Department of Agriculture has been appealed to by both railroads and shippers, and today the position of the department is tentatively announced as follows:

If cars are not loaded beyond the minimum weight fixed by the tariffs, the department will not, for the present, raise the question as to whether sufficient space is provided for the animals to rest; but railroads which load beyond the minimum and do not unload for rest will have to take their chances of prosecution in the courts.

It is the intention of the department to institute a number of test cases and secure rulings from the federal courts as to what space must be afforded. It is claimed by the department that this is the only course open, since no power is given the secretary of agriculture by the law to make rulings and regulations regarding space to be afforded in cars.

In all cases where live stock is not unloaded en route "into properly equipped pens for rest, water, and feeding," the care must be provided with facilities for feeding and watering in transit, and live stock must, when so fed and watered, receive proper feed and water.

LIVE STOCK NOTES.

F. W. Woods, of Nebraska, a prominent stock feeder and ranchman, fed the past winter season, 1,400 cattle and 1,200 hogs.

Michael Tierney, of Iowa, has sold, since the first day of last December, nearly \$2,000 worth of hogs, and he has 40 head of brood sows left, from which he hopes to realize good returns during the present year. He is one of the most successful stock raisers and shippers in that region, having been in the business long enough to know how and what to feed, as well as when to ship in order to strike the best market. Mr. Tierney went to Chicago recently with three car loads of choice cattle of his own raising.

Reports from Kansas state that hog cholera is on the decrease, as shown by advices received by the state live stock sanitary department. While the weather may have something to do with it, it is firmly believed by the inspectors that hog cholera serum is the principal cause of the decrease. "The agricultural college is now able to more than supply the demand for serum," says Live Stock Commissioner Mercer. "This shows that the disease is abating. The farmers of Kansas should not sustain any heavy losses in the future from hog cholera, for it has been demonstrated that the disease can be mastered by the serum process."

During the third annual spring meeting of the Indiana Cattle Feeders' Association at Purdue University, Lafayette, Indiana, recently, about two hundred cattle feeders, representing practically every county in Indiana, and also representatives from Pennsylvania, Ohio, Illinois, Missouri and Kansas, were present. H. P. Rusk, of the Experiment Station, pointed out that while the Indiana farmers were anxious to keep feeding cattle to maintain the fertility of the farms, there has been a slow, but steady, decrease in beef cattle during the last five years. Indiana, like several other states, has ceased to rank as a producer of beef cattle, and is buying feeding cattle grown in other states. The state is not producing beef cattle in sufficient numbers to be considered as a source of stocker and feeder cattle for her own feed lots. Farmers owning only three to five cows, who formerly had a few yearling stockers for sale every spring, are now vealing their calves. He said this was a condition which Indiana cattle feeders will find it more difficult to meet as the years go by, and the time is not very far distant when farmers will be compelled to produce their own feeders.

Samuel Miller, of Iowa, who lives in one of the largest cattle feeding and hog raising sections of that state, says there will not be more than half the usual number of cattle fed this summer thereabouts. He claims that the supply of cattle pastured will be but half as large as a year ago, and says it looks like a shorter supply of corn-fed cattle for the late summer months than ever before. Many of the regulars announce their intention of staying out of feeding cattle this summer, lacking the nerve to pay fat cattle prices for thin stock to finish. Mr. Miller says the pig crop will be light, not because of any worse luck than usual, with the youngsters, but because fewer old sows and a larger percentage of gilts were bred, thereby cutting down the size of litters. Not many old sows were left to breed, most of them having been sold two years ago. Farmers are extending their corn acreage, scarcity of cattle to graze being a factor and the fact that old clover meadows were mostly frozen out and plowed up another.

Some Interesting Facts About Overlands

Our 800 dealers now are selling over \$200,000 worth of Overlands daily. That's a far larger sale than was ever attained by any other car in the world.

Some of the Users

The Government is one of the Overland users. For a year and a half some of these cars have been used in carrying the mails. For 500 days they have made their regular trips, winter and summer, without a moment's delay. Each of these cars has done the work of three horse-drawn vehicles.

The J. I. Case Threshing Machine Company some time ago supplied 25 Overland cars to their country salesmen. They report that one man with one of these cars can do two salesmen's work.

The Altman & Taylor Machine Co. have also begun to supply Overlands to their salesmen.

We have recently built delivery car bodies on 900 Overlands for the use of storekeepers who want them for use as light delivery cars.

All Due to Simplicity

All these new uses for Overlands are due to their utter simplicity. A novice can run one as well as an expert.

The operation of the car is by pedal control. One goes forward or backward, fast or slow, by simply pushing pedals. The hands have nothing to do but steer.

Overlands are almost trouble-proof. The usual complexities have been avoided. One of these cars has been run 7,000 miles, night and day, without stopping the engine.

A child can master the car in ten minutes. Any member of the family can run it. And a car

that is relied on to carry the mails is the car which will always keep going.

\$3,000,000 Plants

Over \$3,000,000 has been invested to produce Overland cars in a perfect and economical way. The cars are made—as watches are made—by modern automatic machinery. Thus we get exactness to one thousandth part of an inch. And thus every part is made exactly like every other similar part. All parts are interchangeable.

Because of this machinery and our enormous production we are able to make cars for less than anyone else.

This year we are selling a 25-horsepower car, with 102-inch wheel base, for \$1,000. We are selling a 40-horsepower Overland, with 112-inch wheel base, for \$1,250. And these prices include all lamps and magneto.

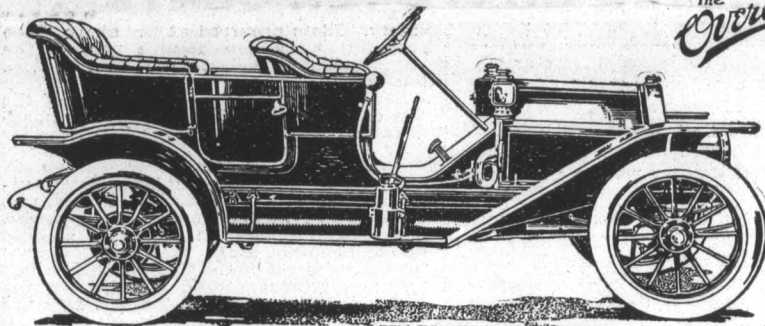
During the past year alone we have cut the cost of Overlands 20 per cent by multiplied production and this labor-saving machinery.

10,000 Tests

The various parts of each Overland car are subjected to 10,000 rigid inspections. Then every car, before it goes out, is given a long trial run on rough roads. One of our test roads includes the worst hill in Ohio.

Thus we know that each Overland is a perfect car before it leaves the shop. There are no mistakes.

Those are part of the reasons why Overlands have now come to outsell all other cars that are made. You will want the car which others want when you learn the facts. If you will send us this coupon we will mail you our catalog. We will also tell you the nearest place where you can see the cars.



The 25-horsepower Overland costs from \$1,000 to \$1,100, according to style of body. The wheel base is 102 inches. The 40-horsepower Overland costs from \$1,250 to \$1,500. All prices include five lamps and magneto.

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Rod your buildings with Shinn Rods—3 cable-strength of pure copper—the only absolutely infallible lightning protector in the world. The center strand is a little giant and this, combined with the others, gives maximum electrical carrying power—greatest possible conductivity is achieved only by the Shinn process. **THE BEST ROD AT LOWEST COST!**



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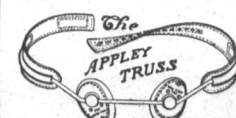


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The Lawrence Pub. Co.,
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DETROIT, JUNE 4, 1910.

25 CENTS TO NEW SUBSCRIBERS.

We will send the Michigan Farmer to new subscribers to November 1, 1910, including one of our farmers' pocket account books of 72 pages, all properly ruled under headings, such as daily egg record, hired help, individual account, cash paid out, cash received, etc., also instructions how to keep accounts, also other general information, and 1910 calendar. Account book sent postage paid for only 25 cents, or the Michigan Farmer to November 1, 1911, and a two-bladed, razor steel, brass-lined knife, worth 75 cents, postage paid, for only \$1.00. Order through agents or send direct to this office.

CURRENT COMMENT.

In reviewing the wool market in a previous issue the statement was made that the manufacturers were likely to play a waiting game until such time as the London sales had more certainly indicated the probable trend of the future market for the raw material and until the demand for goods for next season's use assumed a definite form. This probability has now become a certainty, and while the Boston market showed a considerable activity after the London market had exhibited a firm tone with some advances on the better grades, yet this activity seemed to be but temporary and buyers have shown no inclination to follow it up by general buying for future use. The only real progress toward a final solution of the problem which resulted from this temporary activity was to further reduce stocks in hand. This has been accomplished to a degree which promises to hasten the fixing of a more definite market, since stocks are now so low that they would soon disappear under an active market, and while they might be made to cover limited movements for some time, yet holders generally feel that the market has seen its low point and as conditions in the country do not indicate that growers are willing to accept the figures offered them for this year's clip, owners of old wool are no more free to let it go at prices for which they are not at all sure they will be able to replace it. In the meantime the worsted manufacturers who consume the raw material most rapidly are waiting developments to see if there will be a demand for heavy

goods result from the line of samples which they now have on the road before purchasing the wool from which to manufacture a season's product of cloth. There seems to be a reaction of opinion in trade circles on this point, it being argued that this class of goods look better and wear better than other woolsens, and that the fact that the trade in this line was disappointing the past season will tend to bring about a reaction and increase the demand for them next year.

In the meantime the wool market is best described as a "waiting" market. Just what the outcome will be does not now seem apparent, but it is certain that growers have not weakened in their attitude to any considerable extent. Reports from the west are to the effect that large growers are consigning their wool on a liberal advance and preparing to wait before ordering it sold until users are willing to pay a better price or until it is demonstrated to them that there is good reason for the reduction of prices upon which the dealers insist.

Experience and common sense both teach us that there is no use in trying to force a waiting market for any commodity. It is a poor time to sell when nobody wants to buy. But with out domestic market at a point which expert observers believe to be low; with the foreign market strong; with cotton soaring, and with a season's trade close at hand, it seems clearly the part of wisdom for growers to keep right on waiting for conditions to so change as to be more to their liking before selling their good fleeces, as there would seem to be nothing to lose by such a course, and a very good prospect that they will be gainers thereby.

In a recent conversation between a specialist in advertising and a merchant, which occurred in the editor's presence, the question of the attitude of the purchaser toward a certain trade marked brand of goods, which is extensively advertised, was mentioned. The merchant stated that in his experience he had found that an extensive advertising campaign sometimes worked both ways by prejudicing the purchaser against the goods, as in the case mentioned, since the purchaser reasoned that an extensive advertising campaign is costly and that this cost must be either added to the price of the goods or taken from the quality, so that he was likely to get less for his money by purchasing a thoroughly advertised article than in buying a similar article in which this expense had not been added to the cost of production.

Whether this sentiment exists to any appreciable degree among the readers of the Michigan Farmer we are not advised, the article in question not being advertised in our columns. But the principle upon which the alleged argument of purchasers in this case was based is of sufficient importance to merit comment at this time. The purchaser who advances such an argument fails to appreciate the fact that the largely increased product which can be disposed of through advertising will reduce the cost of production and distribution so materially as to make the advertising profitable without adding anything to the cost of the article or taking anything from its quality. In fact, an extensive advertising campaign, to be profitable to any manufacturer, must be based primarily upon the quality of the article manufactured. No manufacturer with business sense worthy of the name would think of extensively advertising an article which would not prove so satisfactory in use as to make friends and thereby make future customers for itself, since no matter how well advertised in order to be permanently and profitably popular, any article must possess quality to back up the claims made for it. And it will always be found upon investigation that the claims made for any standard article which is extensively advertised are backed up, both by the manufacturer and the distributor of that article. In fact, the thorough advertising of any article is one of the very best guarantees of quality which it could have and, other things being equal, the well advertised articles should always be given the preference by the prospective purchaser for this very reason if for no other. For many years the Michigan Farmer has ever stood back of the advertisements which appear in its columns and the instances are rare indeed, when any complaint has been received with regard to the quality of any manufactured article advertised in its columns. We do not believe that the erroneous sentiment mentioned above is held by many readers of this paper, but deem it proper to bring out the facts in this comment, lest there should be an

occasional reader who had not gone deep enough into the subject to arrive at the same conclusion through the natural process of reasoning.

The Conquest of the Air.

The report of a successful flight in an aeroplane from Albany to New York by aviator Curtiss, in which he traveled at an average rate of over 50 miles an hour and pulled down a new world's record for the "heavier-than-air" type of flying machine is received calmly as simply another demonstration of the fact that the realm of the air is gradually but surely being conquered by man. Now it is proposed to hang up a valuable prize for a successful flight from Chicago to New York with a limited number of stops, a feat which is hardly more impossible than the one just accomplished would have been thought a short time ago. Modern progress in the science of aviation is indeed wonderful, and the people of Michigan are to be congratulated upon the fact that they will have an opportunity to observe it in its most advanced form at this year's state fair, the Wright Brothers, who successfully met the government tests with their machine, having been signed to give several exhibitions each day during the week of the fair, September 19-24. This will be the first exhibition of the kind to be given at a state fair and will, no doubt, prove a star attraction.

HAPPENINGS OF THE WEEK.

Foreign.

Emperor William of Germany, is suffering from a severe bite on his right hand that has required three minor operations to relieve the pain and bring the disabled member back to its normal condition.

But meagre reports have come of a disastrous storm that swept the shore along the Mozambique coast. Many steamships were destroyed and it is rumored that 400 natives who were on their way to work in the mines were drowned. Besides much damage was done to property inland where houses were leveled to the ground and other structures destroyed.

Colonel Roosevelt is being entertained in England this week.

The Chinese government has loaned \$30,000,000 from American, British, French and German financial concerns. The loan is made to build the Hankow-Szechuen railway. The basis of the agreement is absolute equity between the four loaning countries, which is distinctly to the credit of America since this is the first time China has so favorably recognized our financial institutions.

There is general unrest among the natives about Chuan-Shia, China, and foreigners are becoming fearful of their safety. Riots occurred at the above place recently and a considerable part of the city, including a Lutheran church, was burned.

Peru has accepted the mediation of the United States, Brazil and Argentina in arbitrating her differences with Ecuador over boundary lines.

National.

The meat packers of Chicago have contracted for 8,000,000 pounds of butter to be delivered in Chicago at Elgin prices. Should this amount of butter be allowed in the hands of a few men it is asserted that the control of the market will be lost to the legitimate trade and put in the hands of these parties. To frustrate the move butter interests are planning on advancing the Elgin quotation to cause the packers to break their contract. A federal investigation is promised.

An injunction has been granted the salvation army of the United States to restrain the American Salvation Army from the use of name and paraphernalia and printed matter that so closely resembles those of the complainant as to deceive the public.

Formal announcement of the candidacy of the senior senator from Michigan, Hon. Julius C. Burrows, for re-election, was made at a meeting of republicans in Kalamazoo on May 30.

Perhaps more elaborate than ever before were the programs for Memorial Day exercises throughout the United States during the national holiday Monday. Every little hamlet, as well as the larger towns and cities, paid tribute to the soldier and sailor dead.

One of the most successful flights ever made in an aeroplane was that of Glenn H. Curtiss who, on May 29, made the distance from Albany to New York city in two hours and thirty-two minutes, the distance being 137 miles, making the average speed for the trip 54.06 miles per hour.

Hon. A. C. Bird, state dairy and food commissioner, died at his home in East Lansing, May 27. He was 46 years old, a native of Oakland county and has been prominent in Michigan politics since the administration of Gov. Pingree. Through his administrative ability the state dairy and food department was placed upon an efficient basis. He leaves a wife and two children.

A study is being made of a peculiar disease affecting horses near Plymouth, Mich., the disease is a fever, and so far as known has never before been found in this state. The department of agriculture, as well as local veterinarians, are studying the disease with the hopes of learning its causes and a proper treatment for its control or extermination.

An official statement comes from the department of agriculture exposing a fish company of Bayport, Mich., for the misbranding of several hundred packages of fish. Suit was brought by the government against the company.

The city markets of Grand Rapids have been pointed out as a model for other

cities to follow. The plan of selling the stalls to gardeners and fruit growers for the season was done on Saturday last. Because of some locations being more desirable than others, the plans promise to be changed so that the stalls will be sold to the highest bidder at public auction. This suggestion comes from the gardeners themselves.

Complaint is being made of a tanning concern of Newaygo county that is dumping refuse in Fremont lake, thereby killing fish and so polluting the water as to make it unsanitary and distasteful to animals who refuse to drink it.

The program of the western Michigan development bureau has not been waged in vain, for the record of the past season shows that there has been more newcomers to that part of the state than for any previous five years. And those coming show an inclination to stay and become a part of the citizenship of the state.

CROP AND MARKET NOTES.

Clare Co., May 24.—One of the heaviest rains this spring fell yesterday, which will make bean plowing easy. Not as many beans will be planted this year as last. Corn planting well under way, with large acreage planted. Contract peas nearly all sown and some pieces up and looking fairly good. Potatoes are being planted but no one very anxious to get a very large field planted. Oats and grass are not growing very rapidly. Too cold for any crops to grow except wheat. Wool rather dull sale but lots of farmers not caring to sell at present prices.

Ottawa Co., May 23.—The recent warm rains are making grass, wheat and oats grow very rapidly. Some fields of oats were so badly damaged by wireworms that they had to be resown. Considerable corn has been planted, but the ground is so wet at present writing that further planting will be delayed for several days. A few farmers planted in April, but all such fields had to be replanted. A few apple trees will have some apples on them, while other trees that bloomed very full will scarcely have an apple, because of the hard freeze on the night of the 13th. Cherries and plums will be a very light crop, as well as strawberries. The Co-operative Creamery Co., at Coopersville, have installed an ice plant with a capacity of manufacturing several tons of ice per day. They will also manufacture ice cream.

Osceola Co., May 23.—The month of May has been very cold with heavy frosts many nights, which undoubtedly have ruined the fruit crop, but aside from that no particular damage has been noticed. Old clover seems all right, but probably some of this spring's seedling of clover has been killed, yet most of it is looking good. Oats are looking well and are doing fine, but meadows and pastures have made very little growth the last month. Corn about all planted, but it is getting pretty wet for it now. A heavy rain Saturday night, May 21, and today. Potato planting commenced; about the same acreage will be planted as usual. Not many potatoes left here now, most holders having unloaded at 10¢12¢. Hogs and pigs very scarce; pigs are selling at from \$3@4 each when four weeks old; hogs, dressed, 10¢11¢ lb; chickens, live, 10¢ lb; butter, 21¢; butter-fat, 26¢; eggs, per doz., 18¢.

Clinton County, Ind., May 24.—Weather has been too cold for corn to germinate well, but oats and wheat are coming out pretty fair. Some corn has had to be planted over. This is a corn growing section, and the acreage will be large, even for this section. A few have not quite finished planting. Killing frosts on the 17th and 18th destroyed most of the early vegetables. (An unusual thing for this time of year). Stock looking well, but young hogs are somewhat scarce because of high prices for both hogs and corn. Wheat will be about half a crop, but weather conditions are now more favorable than for some time past. Butter has taken quite a drop, and many are shipping their cream to Purdue University or Indianapolis, where the prices range somewhere around 33¢ per lb. for butter-fat. Eggs, 18¢ at local store; wheat, \$1.03; corn, 58¢; oats, 46¢. Hogs are selling at Lafayette for \$9.70 alive.

Marion Co., Ill., May 25.—Weather is a little too cool for corn, most of it is planted. The cutworms are doing some damage to corn and potatoes. Oats are looking well. Wheat headed out, showing some smut. Meadows are growing well, a good many weeds showing in same. An all-night rain fell the 22nd and 23rd. Ground too wet to work. Eggs, 18¢; butter, 20¢; old hens, 13¢; wool, 23¢ for best; fat cattle, 4¢6¢; hogs, 8¢. A good many spring colts, mostly mules. No fruit except strawberries and a few plums.

Lucas Co., O., May 20.—May has been very cold and backward. Farmers have been in no hurry to plant corn until now. Heavy rains in April and the first of May has injured barley and oats on the clay. The cool weather has been ideal for working teams and farmers are well along with their plowing and fitting, and the next ten days will be busy days in trying to get planting done. Horses are high and scarce. Milch cows high, \$55@75. A few bunches of choice fat cattle have sold for \$7.50 per cwt. Hogs, \$9.50; wheat, \$1.05; corn, 75¢ per 100 lbs. of ears; potatoes, 15¢; butter, 22¢; eggs, 19¢; hay, \$12. Help is high and scarce, \$1.50 per day with board, and hard to get good help at that.

Bureau Co., Ill., May 23.—At present having wet weather. Early planted corn had to be replanted. Later planting is reported coming well at present. Too wet to plant. Probably one-quarter yet unplanted. Oats look well; wheat was damaged last winter; the weather is favorable for it at present. Our markets are unsettled at present. Good hogs brought \$9 per cwt; cattle are scarce. Clover and timothy look well; timothy, \$8@10 per ton. It has been raining since Saturday. Some cooler at present in this section. The farmers depend mostly on cattle, hogs, corn, hay and oats. At this time we have little to sell. Markets unsettled. In 30 or 60 days it will be different.

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

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

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

ONLY A FLOWER GARDEN—BY MISS Z. I. DAVIS.

If only you could persuade her to come and spend the summer here! I fear that she will not live until autumn in the city. She appears to be growing weaker every day. But she dislikes the country so. Her mother says that she would rather die in the city than live outside of it."

"Next time you come for vegetables, bring her with you. Then she can see how she likes it," said the farmer's wife briskly. "Most all of our visitors admire Evergreen Farm," she concluded in a tone of pardonable pride.

Miss Lee placed her fruit and vegetables in the rear of the carriage and, with a good-bye nod to Mrs. Field and daughter, drove away.

"Imagine the proud Lillian Summers coming here to give us more than a toss of her vain little head," exclaimed Tillie to her mother. "Many a time I've heard her laugh at the country people and jest over the dullness of life in the suburbs."

"Girls sometimes say things to hear themselves talk," replied her mother. "I always thought her a pretty girl, and if she is not as wise and sensible as my little daughter," and Mrs. Field lavished a motherly smile upon her, "may be it is because she hasn't had the opportunity."

"Shall we give her the opportunity, mother dear?"

"How?" asked Mrs. Field with new interest.

"Let us, if possible, persuade her to stay the summer with us. Perhaps we can if we make the place look more attractive. Let us arrange the lawn tastily, and beautify it with flowers and shrubs. Of course, 'motherdy,' which was her pet name for her mother, "you have made a good beginning. There are roses, lilies of the valley, and hydrangeas. But we want a pansy bed, a mound of geraniums and phlox, and we have some peonies in the garden."

"Your head is full of plans," exclaimed her mother. "No wonder, for you had landscape gardening in college. You had practical work there, too, didn't you?"

"We were expected to work an hour out of doors every day," replied the daughter.

"Was that the way you got acquainted with Mr. Morton?"

"Yes," was the blushing assent. Then she continued, "Let me give you a demonstration of what I learned."

That night, at supper, Mr. Field was surprised with a series of questions given him in rapid succession by his spirited young daughter. To her request for the use of the front yard, he laughingly answered, "Do what you like with it as long as you do nothing worse than make mud pies."

The hired man was set to work digging the mounds. Tillie counted her savings and found that enough remained to purchase a dozen pansy plants, six geraniums, three scarlet and three white, with some silver left for asters and nasturtiums.

The next day, bright and early, she and her mother drove over to the greenhouse to make the purchases for the new flower garden. The proprietor was an energetic young lady, who, like her patrons, was starting out in a new business. So she added some extra plants to each variety ordered. After Mrs. Field and Tillie arrived home, they discovered a quantity of

asters, petunias, mignonette and sweet alyssum tucked away in the box, all ready to transplant.

After the geraniums were set out the yard looked so bright and pretty that Mr. Field exclaimed, "I want a part in this, too." So he ordered a lawn fence of a neat but plain pattern, with gates to match. Soon the yard began to wear such a different aspect that the neighbors declared it did not look like the same place. A lawn mower was purchased, a pair of shears for trimming, and a few other tools.

"It costs so much," objected Mrs. Field, "and Tillie needs a new spring suit."

"I feel," replied the young gardener, enthusiastically, "as if we were not going to lose anything by this."

At that moment the rural carrier halt-

They were met at the door by Mrs. Field and ushered into the cool, inviting parlor. After the introduction, Tillie found herself talking with a young lady who would have been beautiful had she not been so pale and slender. Her skin was as white as paper and her blue gray eyes looked at Tillie with an expression that could never be forgotten.

"How perfectly lovely it is here," exclaimed the new guest enthusiastically. "I feel right at home," she added in a well modulated voice. "I am going to rest in that hammock out there under the delightful rose tree until lunch is ready," she concluded. Suiting the action to the word, she was soon enjoying the soft summer breeze that fanned her and lulled her to sleep.

She was awakened by a gentle caress

shall need a guardian for my stomach's sake."

"If you want an indulgent one, choose me," said Mr. Field.

"Will you let me stay all summer?" and the girl who had always "hated farm life," lifted her eyes to those of her host with a child-like earnestness.

An expression of pleasure went around the table. Mrs. Field and Tillie both exclaimed at once, "That is good. It is just what we have been planning and hoping for."

"But," interjected Miss Lee in a skeptical tone, "What has induced you to change your mind?"

"O, it is the beautiful garden; the tall, whispering trees and the quiet, home-like atmosphere."

In a few days Lillian's trunk and baggage arrived. As Mrs. Field took her to her apartment, she exclaimed, "Oh, what a love of a room. And it opens right out on the porch where I can see the roses climb and blossom. I can hear the birds sing and watch them nesting."

"How much did she offer you a week, mamma?" asked practical Tillie.

"She flatly refused to pay less than five dollars."

"Splendid," replied the girl. "That means needed furniture, new garments and many other nice things to make home more comfortable, and all through the flower garden. Let us send for some more roses and fruit trees," she added enthusiastically.

"Tiltha," smiled her mother, "you are becoming ambitious. If we continue, we shall have a paradise on earth."

At first, the physician came to prescribe for Miss Summers every day. But as her cheeks began to grow rosy, and health was returning, the doctor came only on every Wednesday. In a short time she did not need medicine.

One morning Lillian came up the walk reading a letter that had just arrived in the mail.

"It is pleasant news, I know," smiled Mrs. Field. "Your cheeks are as red as the rose in your hair, girle."

"Let me tell you something," was the smiling reply. "Call Tillie; I want her, too."

As the three ladies sat down in the vine-trellised summer house, Lillian began: "Doctor says that I do not need a physician now, but he declares that he needs me. This will bring my happy vacation to a close. I must pack up this afternoon." After a moment's pause, she added, "Ray Morton is to be present at our wedding. Tillie, may we not have a double wedding?"

The girl opened her large dark eyes in astonishment. "How did you know of our engagement?" she asked.

"O, I guessed," was the laughing reply.

A vision of the Summers' beautiful home, its wide banquetting halls, the orchestra, and decorations all at her disposal, seemed almost too good to be true, as Tillie slowly gave assent to the plan.

Just as the sun was sinking in the west on a September afternoon, the wedding guests in the Summers' home listened to the solemn words that united Dr. Joice and Lillian Summers, also Ray Morton and Tiltha Field in holy matrimony. Every guest present said that it was a beautiful occasion, and an event of a lifetime.



Farm Flower Garden with its Wealth of Leaf and Bloom.

ed on his rounds long enough to leave a letter. Scanning the contents, Tillie exclaimed, "She's coming, mamma. Miss Summers is coming tomorrow. Miss Lee wants some fresh berries and Lillian has promised to accompany her. How glad I am that the house is all in order. There is little left to do to the lawn, now, except to watch things grow," and the critical eye of the gardener ran over the plain but neat beds of plants and bloom.

At 11 o'clock the next day a white pony and carriage came up the evergreen-fringed road and stopped at the Field home. Two young women alighted and came leisurely up the path.

and a call to dinner. After all were seated at the table, there was a moment's hush, and Mr. Field asked the blessing.

"How appetizing everything looks," said Miss Summers as she confessed to the possession of a very unlady-like appetite. "Is it the home-grown food or the people here that makes everything taste so good?" she asked.

"If you continue to increase your appetite," laughed Miss Lee, "you will eat these kind friends out of house and home."

"A well-timed hint," was Lillian's laughing rejoinder, "but if they continue to have such tempting spreads I fear I

ROMANTIC LIFE of HERBERT FURLONG.

Thrilling Experiences of a Soldier of Fortune, Ranchman and Federal Detective.

BY J. W. GRAND.

About a month after the encounter with the rattlesnake, finding that farming was not in my line, I called an auction sale and sold or gave everything away. I then returned to England and the old mill in Lancashire, where I became an overseer.

We had on one occasion to fasten a lightning conductor, which had sprung near the top of a very high chimney, and the superintendent chose myself and one Orkney Smith to do it, as the most daring of his men. I had always a very cool head, and could stand on elevations that made most men dizzy. About half a dozen of us went that morning, with a hand cart containing the necessary ropes and blocks, the kite, and a box or cradle. Having flown the kite and dropped its line across the top of the chimney, we soon drew up a rope at the end of which was a block through which ran the line whereby we were to be drawn up. Orkney had only been married a fortnight, and as we stepped into the cradle the men banteringly asked him if he hadn't a last dying speech to leave for his wife; and then, Mr. Staming having shaken hands with us and bid us be cool and steady, we were drawn slowly up. It was known all over the town that the conductor was to be fixed, though as the day was not named I did not expect we should have many spectators. But as we got higher, and the view opened under our feet, I saw that the streets were already thronged with stagers. Orkney was very quiet, and when I waved my cap to the people he said, snappishly, that this was no time for such folly, and that he thought I might think of better things than how to amuse those gaping fools, who, he dared say, desired no better fun than to see us meet with an accident.

I had come up in the best heart, thinking, indeed, nothing about the danger we incurred, but as we drew nearer and nearer to the top and had nothing, as it seemed, belonging to this world near to us but this straining rope, I began to see the peril of the undertaking. What Orkney thought of it I don't know. He sat at the bottom of the cradle, never looking out, though I told him he would do better to keep his eyes about him so that he might grow used to the height.

Good Heavens! what was this? Here we were within a few yards of the top projecting coping, and still they were winding away without slackening speed in the least. I guessed in a moment that they mistook our height, and with the great purchase of that windlass the rope would be broken when the cradle came to to block. I sprang up and, catching the rope, climbed hand over hand to the coping. Orkney, too, sprang up and followed me. He, too, got safe; and still they went on winding up till the rope sung again with the strain there was upon it. Then it snapped, and cradle, hauling-line and the main rope, with its block, fell down. Thus we two were left in the most desperate situation. Poor Orkney was completely dazed with fright. The moment he got on the coping, which was only a foot and a half broad, he called out, "Where can I pray?" And so I said very solemnly, "Sit down, Orkney; God will hear us if we pray to him sitting down."

The color of his face was a transparent blue, and it was distorted and twitching as if he were in a fit. His eyes were very wild and drawn into a squint, and he couldn't sit steady but swayed his body back and forward so that I felt certain he must topple over.

"Come, Orkney, lad," I said, thinking to take the fright off him; "it's bad enough, but it can be mended. Hitch up a bit, and put your arm round the rod, maybe it will steady you."

"Where are you? and where is this rod?" he asked in a very hollow voice, though he was looking straight at me, and the rod was only a foot or two to his left. By this I knew that he was gone blind with the fright, and self-preservation said, don't go near him. But then I remembered his newly-wedded wife, and that, taking him all through, he was always a very decent fellow; and I thought how I should have liked him to have done if I had been in his case; so I determined to run a bit of risk in his favor. Of course, I dared not get on my feet; but, working myself on by my hands, I got to him. Putting my arm round his

waist, and telling him as cheerily as I could to keep cool, I got him with his arm around the rod. It had, however, sprung the stapling for five yards down, and was so loose that it swayed with him, and I expected every minute to see him falling head over heels and the rod tearing away with him.

There was great bustle down below. People were rushing around the yard and pushing to get in, but as yet there were but a score of men at the foot of the chimney, and, by close looking, I saw them put somebody on a board and carry him gently away toward the engine-house. One of the men walked after with a hat in his hand; then I knew that somebody had been hurt by the falling cradle, and that it must be poor Mr. Staming, as none of our men wore hats. Not a face was turned up to us. I learned afterward that our men were so taken up with sorrow that so good a man and so kind a master should be killed, that for a while they had never a thought about us, and the people outside imagined that we had come down with the cradle. Thus were we left in total isolation for fully twenty minutes.

While I was watching them below, feeling very sorry for my poor pastor, I was startled by a wild laugh from Orkney, who began making cat-calls and yelling as if he were possessed. Then I knew, of course, that he had gone mad.

Even now I tremble when I think of that time. It was horrible to peer down the shaft, black and sooty and yawning, and scarcely less so to look outside and see a flight of pigeons sweeping around at considerable less height than we were. Then Orkney—thank God, he was so dazed that he could not see me—called my name three times as I sat fairly cringing in dread that his sight might clear. With a ghastly grin, and chewing with his mouth, he began working himself toward me. I worked away from him as noiselessly as I could, with every hair of my head standing on end. He followed me twice around that horrid coping, making most hideous noises, and then, having come a second time to the rod, he got an idea in his muddled head that I had fallen over, for he never lost a sense of where he was all through this trying time. Then he tried to get upon his feet. At the risk of my own life I could not let the poor fellow rush on to sudden death without one more effort, and I cried out for him to sit down. He cowered down like a whipped dog, all trembling. I suppose that it had been put into his head that I was a dead man speaking to him. That morning my wife had received a letter from her sister in Canada, and as there were parts we could not make out I had put it in my pocket, intending to decipher it at my leisure.

It had a scrap of uncovered paper at the bottom, and by another good providence I happened to have a bit of red-lead pencil in my pocket. I wrote on the paper, "Get us down—Orkney's gone mad." This I shut in my tobacco box and was fortunate enough to drop just at the feet of a couple of men who were standing by the engine-house door.

Directly all was bustle to rescue us. They got the kite again and I watched it slowly mounting—slowly; and when the slack twine fell between Orkney and myself I took it in my hand and could have kissed it. Poor Orkney, with his teeth chattering, still fancied I was a spirit, and I did all I could to favor this idea until they got another cradle up to us. Then, having gotten him in, I scrambled in myself and, clutching him fast, I shouted for them to lower. And so we were taken down, he wrestling and fighting with me all the way.

He was in a mad-house for some months, and then went to scavenging, for he never could face any height again.

(In our next Magazine Section the author of this interesting series will give Mr. Furlong's story of an incident which occurred during his service as a mill manager in Russia.—Ed.)

THE FOUNT OF WORTH.

BY EUGENE C. DOLSON.

'Tis the heart's wealth that all life's good supplies;
There bides in none true worth from this apart;
Is the mind great? Its source of greatness lies
In the deep impulse of a human heart.

JIM AND JOE.

BY J. M. W.

When first the Klondike craze broke out, it reached a town I know,
Where, peacefully together dwelt
Two brothers—Jim and Joe.

Quoth Joe to Jim, "Let's pack our grips
And try this far-famed land;
For now in town there waits a train
To take a Klondike band."

Jim mused a bit, then firmly said,
"No, Joe, we'd better stay;
The Michigan Farmer offers work
And always gives good pay."

So Joe he started—sad and lone—
For Klondike regions cold,
And worked by night as well as day
In search of Klondike gold.

Alas, alas, poor, foolish Joe,
His pocket grew so l-a-n-k,
While Jim, who for the M. F. worked,
Stored money in the bank.

MORAL.

You need not search Alaskan fields,
There's gold to win right here;
The thousands who this paper read
Will want it every year.

To all you restless mortals, who
A roaming fever get,
Just for The Farmer go to work,
'Twill pay you better yet.

(This clever effort was no doubt inspired by the very liberal terms which this paper is making to its subscription representatives, further particulars concerning which will be gladly furnished by its publishers.)

"Dad, I was simply great in relay events," boasted the boy from college. "Good enough, son. We'll make use of them talents. Your ma will soon be ready to relay the carpets."

"As soon as some men gits a little saved foh a rainy day," said Uncle Eben, "dey can't resist de temptation to knock off work an' watch foh a shower."—Washington Star.

"Did you try counting sheep for your insomnia?"

"Yes, doc, but I made a mess of it. I counted ten thousand sheep, put 'em on cars and shipped 'em to market. The wad that I received in return made me so nervous that I had to stay awake and watch it.—Ex.

KINKS.

Kink I.—Hidden Michigan Counties.

What county is part of a tree?
What county was a great explorer?
What county is a neat lady?
What county was Queen of Spain?
What county follows a trade?
What county is a metal?
What county is a Greek letter?
What three counties were presidents of the United States?
What county bids us keep on eating?
What county is a bay?
What county was U. S. Senator from Michigan?

What county is a lake?
What two counties are religious?
In what county could a girl be a boy twice?
What two counties are girls?
In what county is man a beverage?
What county was an early Michigan explorer?

Kink II.—Hidden Transpositions.

1. I am an island composed of a kind of conveyance, a word meaning "angry," something used for lighting, and a pronoun.
2. I am part wild animal, and part of me means "to gain." You will find me in people's houses.
3. I am a city. Part of me, nearly all plants do, part of me is a weight, and part a suffix.
4. I am a bird composed of a suffix, a mighty man, and an animal that swims much.

Kink III.—Five-Letter Square.

A garment.
A musical instrument.
A bird.
Old form of singly.
A chemical term.

Prizes for Straightening Kinks.—To the sender of each of the ten nearest correct answers to all of the above Kinks, we will give choice of a package of 50 postcards of general interest, a nice leather purse, or a copy of the Everyday Memorandum cook book. Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must not reach us later than June 24, as correct solutions will be published in issue of July 2. Address answers to the Puzzle Department, Michigan Farmer.

Answers to May 7 Kinks.

Kink I.—Half Duplicates.—1. Barn-door; 2. Door-lock; 3. Lock-spring; 4. Spring-house; 5. House-hold; 6. Hold-back; 7. Back-log; 8. Log-chain; 9. Chain-pump; 10. Pump-stock; 11. Stock-food; 12. Food-box; 13. Box-wood; 14. Wood-worm; 15. Worm-fence; 16. Fence-post; 17. Post-box.

Kink II.—Fourteen Queer Cows.—1. Coward; 2. cowlick; 3. Moseow; 4. cower; 5. Cowper; 6. cowboy; 7. cow-paths; 8. cowl; 9. cowhide; 10. scow; 11. cowcatcher; 12. scowl; 13. cowlkick; 14. Cowpens.

May 7 Prize Winners.

Only two sets of correct solutions were received and awards are accordingly made to Mrs. W. C. Massey and Mrs. James Parkinson.

Facts for Weak Women

Nine-tenths of all the sickness of women is due to some derangement or disease of the organs distinctly feminine. Such sickness can be cured—is cured every day by

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We shall not particularize here as to the symptoms of those peculiar affections incident to women, but those wanting full information as to their symptoms and means of positive cure are referred to the People's Common Sense Medical Adviser—1008 pages, newly revised and up-to-date Edition, sent free on receipt of 21 one-cent stamps to cover cost of mailing only; or, in cloth binding for 31 stamps.
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MANY IN ONE.

BY MILDRED M. NORTH.
Grandpa calls him "Johnny,"
Papa calls him "Bob,"
Mamma, "Busy-body"
When he's hunting for a job.

"Skeezicks," says his auntie,
And he's "Grandma's boy,"
Sometimes "Little Nuisance"
Is the title we employ.

Climbing into trouble,
He's a "Rascal" bold;
Busy fingers reaching,
He's "Mischievous" he is told.

Brown eyes bright and shining,
Busy at his play,



He is "Baby Bright-eyes,"
Happy all the day.

Ready robed for Dreamland,
With the shades of night,
He's our "Darling baby"
Sleepy eyes shut tight.

In the early morning,
Waking sweet and bright,
He is "Mamma's sweetheart,"
While soft arms hold me tight.

Then while wet sweet kisses
Cover all my face
He is "Mamma's lover"
In a close embrace.

Ready for a frolic
"Daddy's little man,"
Face all smiles and dimples,
Beat him if you can.

HOW THE WOODPECKER PAYS HIS WAY.

BY EUGENE F. CRANZ.

Once a lot of boys were throwing stones at some woodpeckers, when a passing man remonstrated with them, whereupon one of the boys replied, "Them ain't birds, them's woodpeckers."

A better day has dawned for the woodpeckers, and they are now justly entitled to be classed as birds, for, taken as a whole family, they are among the best friends of the farmer. I have a special reason for admiring the "flicker" or yellow-hammer. Next to the quail, I doubt if there is really a more useful and friendly bird to the farmer. The reason? Well, many years ago, in company with several other boys I came upon a flicker's nest in an old stub. The young were of the age to begin at once their monotonous noise that has been likened to the singing of a telegraph pole. One of the boys suggested that one of us climb the stub and throw the young birds out, as flickers were woodpeckers and all woodpeckers were bad birds! To our everlasting shame the suggestion was carried out.

The nest was quite high up from the ground, and the young birds were chock-full of breakfast and dinner. One of them on striking the ground burst open, and the sight we saw remains green in my memory to this day. Actually a handful of cutworms spread upon the ground around that dead nestling! Mixed with the cutworms there were numerous big ants.

How industrious must a pair of flickers

be to provide food enough for six or eight such hungry nestlings? It will be putting it low enough to say 500 worms and insects a day for two or three weeks, and all taken from the fields near-by. Later in summer and autumn they feed largely upon grasshoppers.

The nest is made by chiseling a cavity in some old apple tree or stub. The eggs are pure white, and from five to nine in number, but usually six or seven. Next to the flicker in usefulness is the downy woodpecker and his bigger cousin, the hairy woodpecker. These two species are marked alike and look much alike except that "hairy" is nearly twice the size of little "downy." The feeding habits are very much the same. The larger species is perhaps less common, and much more wary. At times little downy comes almost within arm's length. He is often found in company with chickadees and nuthatches, whose feeding habits are somewhat similar. The downy is a frequent visitor about the dooryard and orchard, especially when the leaves are off the trees. He seems always to be looking for something to eat, moving around the body of the tree, and then limb after limb, tapping, tapping with his sharp bill in all the cracks and crevices of the rough bark, looking for insect and insect eggs. Even the tough woven cocoons of the larger moths do not escape him, for with his sharp bill he probes them to the center and devours the chrysalis within. The downy's nest is often made in a decayed limb of an apple tree, and the eggs, four or five in number, are like those of all other woodpeckers, pure white.

THE FRIENDLY "REDWING."

BY G. E. M.

In considering the value of birds, the fact should not be lost sight of that while many species do some actual visible harm, they may also, day by day, be doing a vast amount of good, quite unbeknown to the observer. A man watches his newly seeded wheat or corn; if he sees birds alighting in the field he may take the pains to stop and carefully watch to ascertain whether they are pulling up the seed. If he finds they are doing so, he naturally condemns the whole tribe, absolutely. Not one man in a hundred would think to inquire whether this was a regular habit of the bird, or whether it did not, as a matter of fact, much prefer certain noxious weed seeds, with a considerable proportion of destructive beetles and insects, simply dropping into the wheat field now and then.

The Redwing Blackbird is probably a good case in point. He is found all over the United States—a very handsome fellow, with bright scarlet epaulets on a glossy black coat. But some states have placed bounties upon their heads. In a few sections of the country the bird breeds in great numbers and undoubtedly does damage to crops; but as a rule he appears to be far more beneficial than harmful. An examination of the stomachs of nearly a thousand Redwings by the Biological Survey of the Department of Agriculture, ranging through an entire year, shows that almost three-quarters of the bird's food is made up of weed seeds, or of insects injurious to agriculture, indicating unmistakably that the bird should be protected. Only 13 per cent of the food consisted of grain, while 57 per cent was found to consist of weed seed, such as ragweed, barn grass, smartweed, etc. That these seeds are preferred to grain is shown by the fact that the birds begin to eat them in August, when grain is plentiful, and continue to feed upon them till the middle of spring. Of animal matter, mostly insects, the amount found was 26 per cent, over 10 per cent consisting of harmful beetles.



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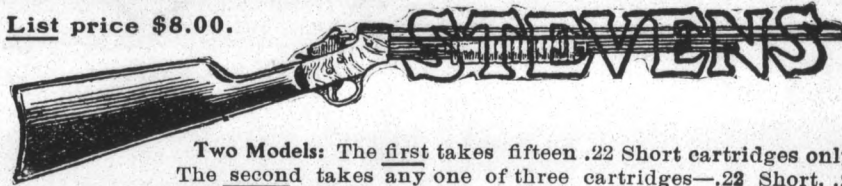
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If you are looking for a good Shotgun at a moderate price, write us and we will send you full details and price list. We make shotguns (single and double barrel hammer and hammerless) that you can buy at prices listing from \$7 up to \$60.

Our No. 520 Hammerless 6-shot Repeating shotgun is a marvel at the figure. (List price \$27.00.)

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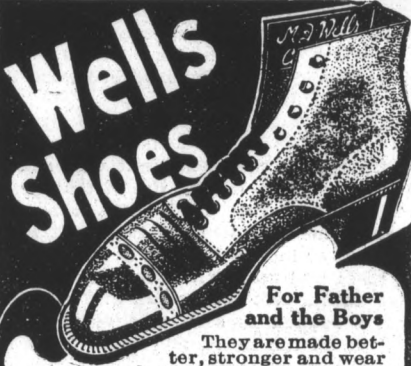
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WOMAN AND HER NEEDS

Do You Always Cook His "Favorite Dishes"?

If You Do, Change to Your Own.

"Jack Spratt could eat no fat, his wife could eat no lean, And so between the two of them they licked the platter clean."

A truly economical arrangement, for by this means every scrap was utilized. And everything was amicable besides? But suppose Jack had been like many a modern American husband, and, because he could eat no fat, had forbidden his wife to cook it? Or, at least, if he had not forbidden it, he had said so many uncomfortable things when she did cook her beloved fat, that poor Mrs. Jack had taken to sniffles and tears and given up cooking her favorite dish? What a blow to domestic economy, to say nothing of domestic happiness.

Yet such a state of affairs exists in many of our so-called happy homes. The wife cooks only those dishes which please her lord and master, and pines in secret for her favorite viands, which her husband crushingly designates "cow fodder" or "pig feed." I know of men who actually forbid their wives to serve beet salad because it looks like blood; others who will not allow tomatoes to be served because they do not like them; still others who forbid lamb and mutton and command that only beef and pork be served for their table, and one or two who actually insist on hot biscuit every meal, year in and year out, without regard to the indigestibility or the extra work entailed. And the wives, for the sake of peace, put up with such impositions.

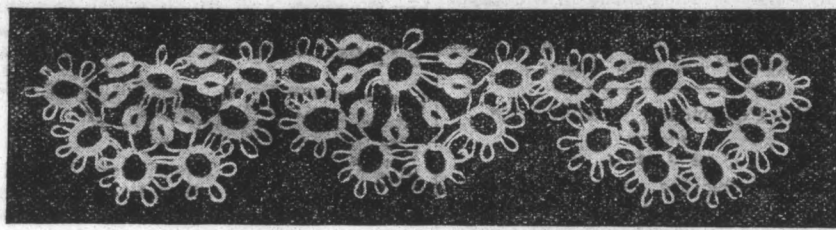
Such a state of affairs is bad for two reasons. First, because it puts the wife in the position of a vassal and makes of the husband a tyrant. Second, because such one-sided bills of fare are bad for everyone. A varied diet is best for all and the families who live on the same sort of fare year in and year out are not getting all the good possible out of their food.

Of course, when we see individual cases of this sort we jump at conclusions and blame the husband for his overbearing disposition, but both are to blame. Men, the best of them, are, by nature, a little tyrannical and like to be lords of their little domain. The wife who is wise, recognizes this fact and calmly, without fuss or unnecessary words, insists on a few rights of her own.

I always feel like shaking the young bride who makes it her business to learn

all Jack's favorite dishes and then cook nothing else. Of course, it is pure, unselfish love which prompts here. She thinks nothing is too good for the man she married and she is happy in cooking what she knows he likes. But she is laying up for herself a heap of trouble. Jack will take such things as a matter of course and come to expect her to cook everything as he likes it, and if, when the novelty wears off, she ventures to cook in her own way, look out for a few nifty words from Jack and a few tears from Mary.

Needless to say that things don't go that way in our household. When I was a child I was frequently told that it did folks good to eat what they didn't like. Not only that, I had to eat what was prepared for the meal without regard to personal likes, so long as the dish did not make me ill. When I married I thought the rule a good one and carried it out, with justice to both sides. If I cook what the man of the house likes



best one day I cook what I like the next. If he reminds me that mother never did that way, when I serve my favorite dish, I calmly reply that my mother did, and that ends the argument. One day I eat what I don't like, for the sake of domestic peace, the next day my husband can either eat what he doesn't like, or nibble the cold remains of yesterday's meal.

I suppose that will shock some young bride who wouldn't for the world cross her idol, but for an all the year round arrangement it is far more satisfactory to both sides than the other way. It doesn't pay in any household for either party to have all the say about how things should be done. Matrimony, like business, should be a game of give and take. And I have noticed that the only really happy marriages are those where husband and wife are both willing to give up, one making the concession one time, the other the next.

DEBORAH.

A Few Ways of Amusing the Children.

"Oh, Dear! I could accomplish so much if it were not for the children," how often we hear tired mothers say.

But did you ever think, weary mother, if it were not for those same children there would not be so much to accomplish?

Those restless little bodies that mean so much work, can be made to lighten the work while very young, if taught in the right way. Once let them think they are helping mother or she is playing with them, how eagerly they go about the things that seem small to older minds, but will lead to larger duties later. As soon as the little feet can walk steadily let them carry some little thing from dining room to kitchen, or send them upstairs after some forgotten article.

One little woman of three years has her broom and carpet sweeper and the way she helps mamma on sweeping days shows she, at least, thinks it no play. And when, one day, the mother dropped the plate of eggs she was carrying the concern expressed in the dimpled face as she exclaimed, "Why, mamma! why didn't you let me carry them for you? Why didn't you take them one at a time?" showed the responsibility she felt.

Then let them have their rolling pin and board on bake days, and little tub and wash board on Monday. It may cause more work to clean up after them but the time is saved in having them near by.

A berry box covered with crepe paper makes a dainty little work box, and when stocked with needles, thread, a pair of blunt scissors and a thimble just fitting the wee finger, will be a source of great

pride. If a small work table just matching the little chair is added it will be a very easy thing when ready to sew, to busy the restless fingers with a new dress for dolly, or perhaps they can be trusted to sew on a button for mamma. Of course, you can not make believe work is play all the time.

On rainy days take a piece of paste-board and print a word on it or draw a picture and let them outline it with small buttons or corn. If they tire of that, give them a small bag filled with beans or sawdust and let them try tossing it into a basket, or incline a board at one end of the room and station the children at the other with a soft rubber ball and promise them a reward as soon as they can roll the ball up the board and catch it as it comes back.

What fun can be found in hunting the spool, always hidden in sight but in out of the way places, under a chair, on a corner of the mantel and sometimes on mamma's head if she is not too busy to join in the game.

A small blackboard will help prepare them for school and need not be tiresome. Begin with straight lines and crosses, it will help them to control the hand that is often so unsteady, when first learning to make the letters.

A hammer and nails, with some pieces of board will help build the most wonderful house for dolly, or a barn for the rocking horse and while they are busy with the seemingly little things they are learning life lessons.

These are just a few ways in which to amuse them; the mother's mind can readily devise more. Boys and girls can be

amused in the same way until they reach the school age. Teach them to be persistent, but avoid as much as possible keeping them at one thing until it becomes tiresome. It may require extra effort on the mother's part now, but the reward will come with years, when the children begin taking their places in keeping the household wheels running smoothly. Then mother will find time for some of the things that must go undone now.

TATTED SCALLOP EDGING.

Make a ring of one double, eight picots each separated by two double; one double, draw up, tie thread and break off.

Second Row: Six double, fasten in a picot of ring, six double draw up; turn the work and leave a short space of thread and make a ring of two double, seven picots each separated by two double; two double, draw up, turn the work and leave a short space of thread, make six double, fasten in picot of foundation ring, six double draw up; turn the work, leave a short space of thread, make two double, fasten in last picot of ring previously made, two double. Repeat as before, making the last picot always a little longer than any of the others. When you have six of these outside rings and seven of the small ones and just one picot left of the foundation ring the scallop is done. Make others like it and fasten together by the third and fourth picots of each

outside ring. Make as long a strip as is needed and sew on by the picots and small rings. This makes a dainty edging for underwear, pillow cases, aprons, and when made of very fine thread is nice for handkerchiefs. Number 40 thread is right for other purposes.

SOME HANDY RECIPES.

Fig Paste for Layer Cake or Candies.

Half pound good, fresh figs, chop fine, juice one lemon, one cupful hot water, three-fourths cupful sugar, cook slowly until a thick paste.

Mayflower Cookies.

To make three dozen, take one cup of sugar, two-thirds cup of butter, half cup of milk, sour or sweet, and one teaspoon each of soda and baking powder, two eggs, or they can be made without any eggs. Mix flour enough to roll out nicely and bake in a quick oven. Roll thin. Flavor to suit your taste.

Fruit Ice Cream.

Half a gallon of new milk, one ounce of gelatine dissolved in cold milk and poured in, three eggs and four cupfuls of sugar; pour in the freezer. As soon as it begins to freeze add a pound of raisins, one pint of strawberry preserves, one pound of chopped almonds, one grated coconut, one pound each of currants and citron, and freeze.

Spanish Cake.

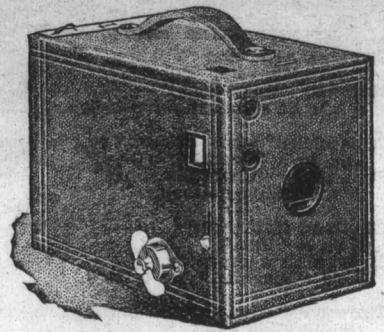
Two tablespoons melted butter, one cup sugar, one-half cup milk, three egg yolks, one and seven-eighths cups flour, one and one-half level teaspoons baking powder, one-half teaspoon cinnamon. Mix and bake in layers. Spread with opera caramel filling between and on top. Filling: One and one-half cups brown sugar, three-fourths cup thin cream, one-half tablespoon butter. Cook until a ball is formed when the mixture is tried in cold water. Beat until ready to spread.

Fried Apples and Bacon.

Put a few pieces of sliced bacon in a skillet. When it gathers fat take out the bacon, drain on brown paper. Core and slice across new green apples unpeeled; lay them in the bacon grease left in the skillet, cover them with three spoons of molasses and a tiny bit of water; turn often with cake turner. They must be dark brown.

Popovers.

Beat well three eggs, to which add one cup of flour, a pinch of salt and one cup of milk. Have your pop-over pan real hot; grease it well and fill it about one quarter with this mixture. Bake in a moderate oven three-quarters of an hour. Do not open the oven door until they are baked. They must be eaten at once or they will fall. They pop over the top of the pan and are hollow inside. Are delicious with sweet butter and maple syrup.



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SHORT CUTS TO HOUSEKEEPING.

This department is opened as a means of exchange of new and successful ideas in homemaking. If you have learned something in cooking, sewing, child raising, fancy work, economy, anything which is helpful, and new, send it in. Twenty-five cents will be paid for every article used, but none will be returned. Keep your suggestions short.

When one is darning or mending, it is often necessary to jump up to look after something else. Make an apron, rounding at the bottom, and with brass rings sewed at intervals of four or five inches all around it, having a strap of the material run through them. When you have to get up, all the pieces, thread, etc., in your lap are easily caught up by pulling up the strap at each side and looping it over the arm. The apron should be of knee length.—Mrs. E. G.

A little piece of butter added to rice will prevent it boiling over.—Mrs. W. H. I buy wire clothes hangers that screw into the wall to hang dishpans on. These are much better than nails because the pan can never slip off on account of the bend upward in the end.—N. F. M.

If nasturtiums are planted among cabbage plants the worms will not eat the leaves off.—N. F. M.

Most every housekeeper knows how hard it is to keep the holders clean. Sew a ring, or the bottom part of hose supporters, in the corner, to hang them up with and make the covering separate. Have a small safety pin to fasten the cover on with. Make a number of covers and change them often.—Mrs. C. M. K.

If any one has an oil heater which is in the way when not in use, try using it for a plant stand. Put a centerpiece or bright-colored paper napkin on top and place in a bedroom or kitchen window.—Mrs. J. W. T.

Save all cans such as baking powder, cocoa, etc., to keep the garden seeds in from year to year. Label with the name of the variety.—Mrs. C. L.

When the bread gets old and dry, dip the loaf for a second in hot water, then place in the oven for about 15 minutes. Will then be as good as new.—Mrs. C. L.

If you make sheets with seams with the middle, run them on the machine, instead of overhanding. The seams will not keep anyone awake.—T. F. C.

HAVE YOU A WOVEN SILK CUSHION? THIS TELLS HOW TO MAKE ONE.

BY E. E. R.

The woman who never has enough pretty cushions may add to her store by utilizing the odds and ends of silk scraps which collect in every household. Cut and sew a half pound as for carpet rags, and then weave them into a square top in the manner described below.

From four light pieces of smooth wood construct a frame by fastening the four corners with nails or screws. These strips may be a little longer than the desired dimensions of the completed fabric, so as to allow the ends to lap two or more inches. If a cover for a 20-inch pillow is planned make the frame 20 inches square, inside measurements. The frame should be firm enough so as to keep its shape and not twist at the corners.

Now drive common carpet tacks on two of the four sides, at an even distance apart, close enough for the warp which is to be strung from one tack to another, one-fourth of an inch or less, according to the desired closeness of the weaving. One-fourth inch apart gives fair results, although to have the tacks closer will make a firmer fabric when completed.

In lieu of a weaver's shuttle have the handy man of the house construct a long, slender needle of hard wood, with an eye in one end similar to a darning needle. This should be made quite smooth. With the loom and shuttle ready the next step is threading the former with warp. For this use black linen thread, drawing it over the tacks snugly from one side to the other. Fasten at the corner of beginning and ending.

Have ready about one pound ball of soft silk rags, cut on the bias wherever convenient, with colors assorted, as for hit and miss. Use plenty of bright colors, also of black, avoiding any that has heavy cords or selvidge which would not weave in smoothly. Thread the wooden needle with one end of the rags and draw through a yard or more, as much as can be easily handled. Now, taking the loom upon the lap the operator passes the needle over and under the warp

threads, drawing the rags along until the end one is reached where it should be tied or sewed with a few stitches to prevent pulling through. Continue the weaving process in and out, over and under, alternating with every row and pressing down with the fingers as the work proceeds. Keep the edges loose so they will remain even with the corners. When the needle is empty draw in more rags and continue in this way until the loom is as full as it will hold. Remove the tacks, and the work will fall out.

This is one side of a pillow cover. Another like it may be woven or some other material used for lining. Result, a bright and pretty cushion cover at the total expense of a few cents worth of linen thread, for there are silk pieces enough in almost every home to furnish the rest of the material.

DYEING FOR THE HOME WORKER.

BY IRMA B. MATTHEWS.

"I do not see how it is," said a lady to me one day, "that you can color things and they look as nice as new and I have no luck whatever. Now, just look at that!" and she held up for my view a dress skirt she had tried to color.

I knew at a glance what the trouble was, and I tried to explain to her that she did not follow directions, but when I told her my own method she declared it was all nonsense and too much bother. But if you have not patience enough to follow directions implicitly, do not try to dye clothing at home for you will only meet with disappointment.

The first thing, if a garment is to be made over, is to rip it up, but if it is to be worn as it is, color it whole. Then put it into a tub of hot soapsuds and carefully soap every spot that is greasy. Rub well, and rinse, using plenty of water. If you wish to remove as much color as possible rinse first, then pour boiling water over it and allow it to stand until it is cool enough to ring by hand. If you get a quantity of color the first time, repeat the process.

Another thing too often neglected is the rinsing. Always rinse as long as a bit of the dye comes out in the water, some times five or six times, then hang in the shade and when dry enough to press, press on the wrong side. If pressed on the right side always place a cloth over the goods. Treated in this way I have never had a garment crock.

Another common cause for failure is the fact that many goods are bought for all wool that are in reality but a combination of cotton and wool, and, of course, when such goods are treated with a dye bath for wool only, the result is a failure. Give the goods the benefit of the doubt and buy the dye for mixed goods and the result is always satisfactory. Cotton goods are just as easily dyed as woolen, although but comparatively few people seem to realize this and many garments are thrown away that would be as good, nearly, as new, if colored. My little daughter had a pretty, pale-pink lawn dress that after the first season left but one of two things to do, color or discard it. I dyed it and the dress came out a beautiful rose pink. The best of it is, it has not faded since with repeated washings. Faded gingham dresses may be colored a dark blue and make pretty school dresses when they were no longer presentable in the original state.

Really, but few things have escaped the dye pot in our home. I keep a package of nearly every color on hand and when daughter's hair ribbons are no longer presentable, a bit of dye dissolved in a granite basin makes them as good as new. I have even colored our hats although I usually use a different method for them. The most satisfactory is to take the common tube paints that artists use, dissolve in gasoline and apply with a stiff brush. This is especially good to freshen a color that is faded but a light hat may also be dyed a different color in this manner. If it is not just right the first time give it a second dressing. This paint must be used when not near a fire and must be applied rapidly. In some dye houses feathers are dyed in this manner, and I have colored faded roses and made them look like new. Dip into the mixture then shake well. As for the feathers it is well to get some white chicken feathers and try them until you get the right shade—and let me whisper to you that one enterprising woman made her own feathers. She saw the coque feathers so much worn and decided they were like what her chickens had in their tails. When a chicken was killed she saved these tail feathers and colored them to suit her fancy and no one ever was the wiser.

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A glance at the full list of its ingredients, printed on every bottle-wrapper, will show that it is made from the most valuable medicinal roots found growing in our American forests. All these ingredients have received the strongest endorsement from the leading medical experts, teachers and writers on Materia Medica who recommend them as the very best remedies for the diseases for which "Golden Medical Discovery" is advised.

A little book of these endorsements has been compiled by Dr. R. V. Pierce, of Buffalo, N. Y., and will be mailed free to any one asking same by postal card, or letter addressed to the Doctor as above. From these endorsements, copied from standard medical books of all the different schools of practice, it will be found that the ingredients composing the "Golden Medical Discovery" are advised not only for the cure of the above mentioned diseases, but also for the cure of all catarrhal, bronchial and throat affections, accompanied with catarrhal discharges, hoarseness, sore throat, lingering, or hang-on-coughs, and all those wasting affections which if not promptly and properly treated are liable to terminate in consumption. Take Dr. Pierce's Discovery in time and persevere in its use until you give it a fair trial and it is not likely to disappoint. Too much must not be expected of it. It will not perform miracles. It will not cure consumption in its advanced stages. No medicine will. It will cure the affections that lead up to consumption, if taken in time.

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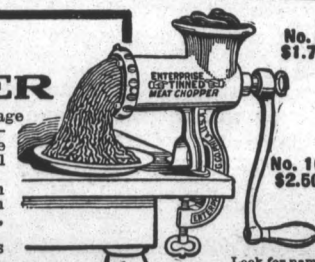
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Address all communications relative to the organization of new clubs to Mrs. C. P. Johnson, Metamora, Mich.

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.

ARTHUR CRANSON BIRD.

The charter members of Michigan State Association of Farmers' Clubs, in common with his wide circle of friends in that organization and throughout Michigan, were shocked to learn of the death of Ex-Associational President Arthur C. Bird, who died at his home in Lansing on Friday morning, May 27, of heart failure, follow-



ing a short but severe attack of pneumonia. It was directly due to Mr. Bird's efforts that the state organization of Farmers' Clubs was effected. Nearly 17 years ago, through his initiative, the officers of the few scattered local farmers' clubs then in existence met in Lansing, formulated a plan and effected the organization of the State Association of Farmers' Clubs. Hon. William Ball, of Hamburg, was made the first president of the organization and Mr. Bird its first secretary, he succeeding to its presidency the following year. Mr. Ball was the first of those who were active in the founding of this organization to be called from active life by the grim messenger, and Mr. Bird is its second president to answer the same final summons.

Arthur Cranson Bird was born in Highland, Oakland county, Michigan, May 22, 1864, his father being Joseph Johnston Bird, a prominent farmer of that township, and his mother Elizabeth Cranson Bird. The Bird and Cranson families were pioneers of Michigan, being in the first company of settlers in Livingston county, Michigan. Mr. Bird received his education at the Michigan Agricultural College, from which institution he received the degree of Bachelor of Science in 1884. From that date until 1898 he lived upon his farm in Highland, beginning upon a small farm which he soon enlarged and upon which he built a substantial country home. Following the organization of the State Association of Farmers' Clubs, he became an associate editor of the Michigan Farmer, conducting the Farmers' Clubs Department, which was established to promote the interests of this new farmers' organization, which position he retained for five years, or until his ever widening business interests compelled him to give up this work. He was appointed a member of the State Board of Agriculture in 1897 and in 1899 was made secretary of the Agricultural College, which position he held for three years. His work in connection with the college compelled his removal from the farm to Lansing, where he soon formed many business connections and later assumed an active part in the up-building of the capital city. For the past five years he has held the office of State Dairy and Food Commissioner, during which

time this state department has fostered and benefited the dairy interests of the state as never before. Notwithstanding his almost phenomenal business success, in large and varied undertakings, Mr. Bird ever retained his interests in the up-building and progress of Michigan agriculture. His life was short as measured by years, but from the standpoint of accomplishments was longer than the average lifetime, yet a host of friends throughout Michigan and many beyond its borders unite in regret that such a useful life might not have been prolonged for many more years of usefulness.

Mr. Bird was married on August 16, 1889, to Josephine St. John, of Highland, Michigan, who survives him. He also leaves two sons and two brothers, with whom many readers of these columns will unite in mourning his loss.

CLUB DISCUSSIONS.

Question Box Feature of Meeting.—On May 7, 1910, the Hartland Farmers' Club convened at the pleasant home of Mr. and Mrs. Wm. Kershner by whom they were most cordially and pleasantly entertained. A large number of their many friends were present and did ample justice to the most excellent dinner which deserved, and received, much praise. When all were fully satisfied that the better part of valor is discretion, the meeting was called to order. America was sung, and as the chaplain was absent all joined in repeating the Lord's prayer. The Club was then favored with several recitations by the younger people, which were well rendered and much appreciated by the members. The question box came in for its share of distinction, contributing much of interest to the enjoyable occasion. The Club then adjourned to meet with Mr. and Mrs. Veselus the first Saturday in June.—Cor. Sec.

Summer Picnics.—When any club in the state decides on the date and place when its summer picnic will be held, we would be glad to have the corresponding secretary advise the editor of this department. These meetings are often made the occasion of visits to other clubs by members who would like to know the time and place of meeting, for which reason we would like to publish the dates of as many as possible in this department.

GRANGE

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

THE JUNE PROGRAMS.

State Lecturer's Suggestions for First Meeting.

"And what is so rare as a day in June? Then, if ever, come perfect days." Lowell.

Opening song.
In the home—IV. Practical talks about disease germs.

Recitation.
One magazine that interests me and why; ten-minute talk.

Reading, "Disease Danger in Dirt."
General discussion on above topics, led by the Master.

One book that I enjoy, and why; fifteen-minute talk.

Instrumental music.
One poem that many people like, and brief sketch of the author.

Suggestions for Second Meeting.

(Flora's Day program, suggested by Mrs. M. Ella Morrice, Flora of State Grange).

Invite all children of the neighborhood; decorate the hall with flowers, and fill all offices with ladies. While singing, "Wayside Blossoms," page 137 in Grange Melodies, the door opens and Flora enters preceded by Ceres and Pomona. All rise to greet her as the two sisters strew her path to the court with flowers, where they step one side to allow Flora to take the chair usually occupied by Ceres. Then Ceres, with appropriate remarks, crowns Flora with a wreath of flowers. Flora gives an address of welcome and presides during the following program:

Reading, "Flowers," (by Longfellow).
Lily march and song.

"Come where the lilies bloom so fair," by ladies' quartette.

Recitation, "The Flowers' Ball."
Flower exercise.

Paper, "Flowers and their significance as symbols in different countries and states."

Awarding prizes for the bouquet with largest variety and handsomest flowers grown by one member; also for the most tastefully arranged bouquet.

PROMPTNESS A FACTOR IN GRANGE SUCCESS.

When Mr. Rockefeller was on the witness stand a few months ago, he apologized for being five minutes late, stating that it was the first offense of the kind in his life. Whatever we may think of others of his business principles, we cannot but suspect that much of the strength of this prince of finance is due to this pre-eminent business virtue.

In the Lecturers' Conferences held recently, this matter of promptness in Grange work was repeatedly touched upon in a way that brought it to my atten-

tion with renewed force as one of the strongest factors in Grange success. It is an old and familiar theme, that of opening and closing a Grange on time. I scarcely know what there is new to be said upon the subject; and yet I am convinced that if, just now, every Grange would rigidly stand by its resolution to open its meetings upon a fixed time, to observe its lecture hour with like regularity, and to close promptly at a seasonable hour, there would be an end to the cry, "No meetings in summer." There is, in fact, no better move for any Grange to take at this time of year than to vote to adopt the "8-9-10 rule," which simply means that they will open at eight, begin the program at nine, and close Grange at ten o'clock.

Let us be honest and do a little self-searching within ourselves. Even though we live upon farms and have a multitude of summer duties, is that sufficient excuse for being unbusiness like? Is not what is worth doing at all, worth doing well? If we must take a train, do we not "make it" on time scheduled by the railroad? If we attend church, do we expect the minister to wait till the people are assembled? Are schools held open until the children have drifted in from our various homes? When we wish to enjoy a lecture or play, do we not expect to miss a portion if we arrive late? Did you ever do some sputtering when you had an early call at a hotel and, upon descending to the dining room, were met with the excuse, "The girls didn't wake up and breakfast is not ready?" Why, then, must ministers, railroad employees, hotel girls, teachers and business men be on time in order to insure successful enterprises, and we of the Grange expect to succeed on a different basis? Business is business and the life of business is promptness. Business brooks no excuses. It is not always easy to meet its demands. None of us is guiltless of occasional failure, but as individuals we should strenuously strive after promptness in our organizations.

Among the suggestions made along this line at the conferences were the following:

1. Adopt the "8-9-10 plan."
2. Begin on time, if one person fills three offices.
3. Proceed with everything connected with a regular meeting, except actual business transactions, when a quorum is not present.
4. Make practice in entering the Grange a part of the program in order to teach members how to enter in case they arrive late.
5. When the time for the lecture hour arrives, let the lecturer arise and respectfully ask to be allowed to present his program. This one thing, if persisted in and followed by bright and catchy program features, will go a long, long way toward building up a comatose, or even an "insurance," Grange.

I firmly believe that such a constructive policy as this, faithfully acted upon for six months, will furnish the framework upon which any Grange, however run-down-at-the-heel it may be, can be made into a respectable sort of an organization. It will at least afford grounds for self-respect.

JENNIE BUELL.

TWO MORE FOR JACKSON COUNTY.

South Henrietta Grange.—Deputy Wilde organized a Grange of 42 members at the Southwell school in the southern part of Henrietta township, Jackson Co., Friday evening, May 27. The following are the officers: Master, D. T. Elliott; overseer, Orvis Baxter; lecturer, Ella Spears; steward, T. J. Spears; assistant steward, H. Roy Stetler; lady assistant steward, Hazel Van Dorn; chaplain, Nellie Olney; treasurer, Mary Harrington; secretary, B. R. Harrington; gate keeper, Elmer Stetler; Ceres, Jennie Palmer; Pomona, Emma Bratt; Flora, Olive Nobert.

Napoleon Grange Organized.—Deputy Wilde organized a Grange at the Griffin school in the west part of Napoleon township, Jackson Co., Wednesday evening, May 18, with 44 charter members. The following are the officers: Master, Wells Bennett; overseer, Fay Winchell; lecturer, Nellie Russell; steward, Richard Bronk; assistant steward, Dwight Smith; lady assistant steward, Celia Smith; chaplain, Homer Foster; treasurer, Joseph Galusha; secretary, M. E. Russell; gate keeper, Wm. Russell; Ceres, Erma Preston; Pomona, Anna Saunt; Flora, Mildred Long.

COMING EVENTS.

Pomona Meetings.
Lenawee Co., with Hudson Center Grange, Thursday, June 2.
Newaygo Co., with Big Prairie Grange, Wednesday and Thursday, June 8-9.
Western (Ottawa Co.), with Conklin Grange, Saturday, June 11.
Osceola Co., with Sears Grange, Thursday, June 23.
Kent Co., with Cascade Grange, Wednesday, June 29. Dr. C. E. Marshall and Bro. C. S. Bartlett, speakers.

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MARKETS

DETROIT WHOLESALE MARKETS.

June 1, 1910.

Grains and Seeds.

Wheat.—The wheat market has been decidedly bearish this past week. Prices are off fully six cents from a week ago. Heavy holders found themselves facing disaster so they unloaded their wheat upon the market, causing the bears to take courage and gave the trade its downward momentum. Prices abroad are relatively as low, or lower, than here, which cuts off and foreign demand. Ability to get wheat from other lands allows them to disregard American wheat for the present. The crop news for the past few days has been bullish since the cold wave has not encouraged the plant to do its best. The visible supply shows a large decrease for this season, while the demand for cash grain showed improvement during the past few days. But this bullish news did not check the decline. One year ago the price for No. 2 red wheat was \$1.55 per bushel. Quotations for the past week are:

| | No. 2 | No. 1 | Red. | White. | July. | Sept. |
|-----------|----------|----------|--------|--------|--------|--------|
| Thursday | 1.06 | 1.06 | 96 1/2 | 96 | 95 1/2 | 94 1/2 |
| Friday | 1.05 1/2 | 1.05 1/2 | 96 | 95 1/2 | 95 1/2 | 94 1/2 |
| Saturday | 1.03 | 1.03 | 95 1/2 | 94 1/2 | 94 1/2 | 94 1/2 |
| Monday | 1.03 | 1.03 | 94 1/2 | 93 1/2 | 93 1/2 | 93 1/2 |
| Tuesday | 1.03 | 1.03 | 94 1/2 | 93 1/2 | 93 1/2 | 93 1/2 |
| Wednesday | 1.05 | 1.05 | 96 | 94 1/2 | 94 1/2 | 94 1/2 |

Corn.—While the trading in the corn department of the market was accompanied with declines in value the outlook for the coming crop is not so favorable as it was last week. Cold weather and, in some sections where corn is an important crop, frosts have occurred to delay later and put back what was growing. The early expectations of the farmers that the corn crop would be earlier in the ground than for many years have not only faded entirely but the planting is now later than normally. This is a bullish condition and should the unfavorable temperature continue it is more than probable that advances will occur in quotations. A year ago the price for No. 3 corn was 76c per bu. Quotations for the week are:

| | No. 3 | Yellow. |
|-----------|--------|---------|
| Thursday | 60 1/2 | 62 |
| Friday | 58 1/2 | 60 |
| Saturday | 58 1/2 | 60 |
| Monday | 58 | 59 1/2 |
| Tuesday | 58 | 59 1/2 |
| Wednesday | 58 | 59 |

Oats.—There are substantial declines in oat quotations for the week. The influence of the other grains was a factor, but the cool weather has been a solace to this grain instead of a detriment and the improvement in the crop favors lower values. The visible supply is about a half million bushels smaller than last week. Michigan fields are showing up well. A year ago the price for No. 3 oats was 62 1/2c. Quotations for the week are:

| | Standard |
|-----------|----------|
| Thursday | 42 1/2 |
| Friday | 41 1/2 |
| Saturday | 41 |
| Monday | 40 1/2 |
| Tuesday | 40 1/2 |
| Wednesday | 41 |

Beans.—There are no transactions in beans. The market is steady and the nominal quotations are unchanged from those of a week ago. Quotations for the week are:

| | Cash. | Oct. |
|-----------|--------|--------|
| Thursday | \$2.20 | \$2.05 |
| Friday | 2.20 | 2.05 |
| Saturday | 2.20 | 2.05 |
| Monday | 2.20 | 2.05 |
| Tuesday | 2.20 | 2.05 |
| Wednesday | 2.22 | 2.00 |

Cloverseed.—This deal is practically at a standstill. The prices quoted are a little lower for the October option. A few sales of cash goods were made at slightly advanced values but not enough to establish a figure for such goods. Quotations for the week are:

| | Prime Oct. |
|-----------|------------|
| Thursday | \$6.40 |
| Friday | 6.40 |
| Saturday | 6.40 |
| Monday | 6.40 |
| Tuesday | 6.40 |
| Wednesday | 6.40 |

Rye.—Market is dull and firm. No. 1 is quoted at 82c per bu., which is a loss of 1/2c over last week's quotation.

Visible Supply of Grain.

| | This week. | Last week. |
|--------|------------|------------|
| Wheat | 20,133,000 | 22,030,000 |
| Corn | 5,490,000 | 6,541,000 |
| Oats | 8,905,000 | 7,416,000 |
| Rye | 518,000 | 573,000 |
| Barley | 1,661,000 | 2,152,000 |

Flour, Feed, Provisions, Etc.

Flour.—Market is improving under the range of prices established a week ago. Quotations as follows:

| | |
|-----------------|--------|
| Clear | \$5.15 |
| Straight | 5.25 |
| Patent Michigan | 5.55 |
| Ordinary Patent | 5.35 |

Hay and Straw.—After last week's decline market was steady. Quotations: No. 1 timothy, new, \$17@17.50; No. 2 timothy, \$15.50@16; clover, mixed, \$15.50@16; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

Feed.—Prices are steady. Carlot prices on track: Bran, \$25 per ton; coarse middlings, \$26; fine middlings, \$28; cracked corn, \$27; coarse corn meal, \$27; corn and oat chop, \$24 per ton.

Potatoes.—The same prices that ruled a week ago are offered for consignments. Trade is dull and unsatisfactory. In car lots, Michigan potatoes are quoted at 23@25c per bu.

Provisions.—Family pork, \$26@27; mess pork, \$25; medium clear, \$24.50@26; pure lard, 13 1/2c; bacon, 20@21c; shoulders, 14c; smoked hams, 18@18 1/2c; picnic hams, 13 1/2c per lb.

Hides.—No. 1 cured, 10c; No. 2 cured,

9c; No. 1 green bulls, 8 1/2c; No. 1 green calf, 15c; No. 2 green calf, 14c; No. 1 cured calf, 16c; No. 2 cured calf, 15c; No. 1 horsehides, \$3.50; No. 2 horsehides, \$2.50; sheepskins, as to wool, 20@60c.

Dairy and Poultry Products.

Butter.—Because dealers have trouble in getting butter to fill orders the firm prices that have prevailed this spring, continue. The much talked of advance that dealers were expected to enforce for the purpose of causing Chicago packers who had contracted for some 8,000,000 lbs., to rescind their agreement, has not taken place; but the buying of western men for storage purposes has materially shortened the amount going on the general market and is held to be an important factor in the present bullish nature of the trade. Quotations are: Extra creamery, 28c; firsts, do., 27c; dairy, 21c; packing stock, 20c per lb.

Eggs.—Eggs have been coming to the market in good supply this past week and figures are lower. An excellent demand is keeping the market very active to distribute the offerings. Quotations are nearly a cent below last week's, and fresh receipts, case count, cases included, are exchanging hands at 19 1/2c per doz.

Poultry.—This deal is very small. The offerings are light but the trade is firm. Broilers are higher. Following are the leading quotations: Live—Broilers, 26@28c; spring chickens, 18c; hens, 18c; old roosters and stags, 12@13c; ducks, 13@16c; geese, 12c; turkeys, 18@19c per lb.

Cheese.—Michigan, late made, 15@15 1/2c; Michigan, fall made, 18@18 1/2c; York state, 19@20c; limburger, Wisconsin, 17@18c; New York, 18@19c; bricks, 16@16 1/2c; Swiss, domestic block, 21c; Swiss loaf, 28c.

Calves.—Steady. Choice to fancy, 11 1/2c; ordinary, 10@11c.

Fruits and Vegetables.

Apples.—Steady and in good demand. Spy, \$4@4.50; Baldwin, \$4@5; Steel red, \$6.50@7.

Cabbage.—Selling at \$2@2.50 per crate for new.

Strawberries.—Lower. A few Michigan berries are coming but the amount is too small to make a market. Per 24-qt. crate, \$3@3.25.

Vegetables.—Beets, 60c per bu; carrots, 90c per bu; cauliflower, \$1.25@1.50 per bu; celery, 75@90c per case; eggplant, \$1.50@1.75 per doz; green onions, 10@12c per doz; head lettuce, \$2.50@3 per hamper; mint, 25c per doz; parsley, 25@30c per doz; radishes, 12c per doz; spinach, 65@70c hamper; turnips, 50c per doz; water-cress, 20@25c per doz; wax beans, \$1.75@2 per bu; pieplant, 25c per doz; asparagus, 75@80c per doz.

OTHER MARKETS.

Grand Rapids.

Wheat, oats and corn are about 4c lower, and rye is off 2c, quotations being as follows: Wheat, \$1.01; corn, 62c; oats, 42c; rye, 70c, and buckwheat 55c. The bean market has been doing better, though prices are steady now at \$2 for white pea and \$2.75 for red kidneys. Egg receipts continue liberal for this time of year, with prices steady at 19c for stock delivered here. Dairy butter is unchanged, dealers paying the country trade 22c. Creamery is also steady at 28c. No change in live poultry, prices for stock delivered being as follows: Fowls, ducks and turkeys, 14c; old roosters, 9c. Dressed hogs will probably be lower before the end of the week, prices ranging now from 11@11 1/2c. Farmers are getting 6@9c for veal.

Chicago.

Wheat, No. 2 red, 99c@1.02; July, 93 1/2c; September, 91 1/2c.
Corn.—No. 2, 57 1/4@57 1/2c; July, 57c; September, 58 1/4c per bu.
Oats.—No. 3 white, 35 1/2@37 1/2c; July, 36 1/2c; September, 35 1/2c.

Butter.—The demand for butter is very broad, coming from both consumer and storage men. Prices firm at last week's values. Quotations are: Creameries, 25@27 1/2c; dairies, 23@26c.

Eggs.—There is a decidedly easier undertone to the egg trade. Receipts are heavy and demand fair. Prime firsts, 18 1/2c; firsts, 17 1/2c; at mark, cases included, 15 1/2@16 1/2c per doz.

Hay and Straw.—Hay is higher while straw rules lower. Quotations are: Choice timothy, \$16@17; No. 1 timothy, \$14@15; No. 2 do. and No. 1 mixed, \$12.50@13.50; No. 3 do. and No. 2 mixed, \$8.50@11.50; rye straw, \$8@9; oat straw, \$6.50@7; wheat straw, \$6@6.50.

Potatoes.—Values are on a lower basis than last week but there seems to be a steady undertone at the new figures. Fancy and choice stocks are selling at 28@30c per bushel, while fair to good grades are quotable at 23@27c per bushel.

Beans.—Red kidney higher. Common beans lower. Choice hand-picked are quoted at \$2.22@2.27 1/2; fair to good, \$2.15@2.20; red kidneys, \$3.10@3.35 per bushel.

Wool.—The trade this past week has been steady and firm at the values quoted a week ago. For fine unwashed delaine, 23@25c is being paid.

New York.

Butter.—The trade is firm at unchanged values. Demand is excellent. Creamery specials are quoted at 29c; process butter, 23@26c per lb.

Eggs.—The values of a week ago are maintained. Nearby eggs are quoted at 24@26c; regular packed extra firsts, 21@21 1/2c per doz.

Poultry.—Trade steady. Western fowls, 14@19c; frozen chickens, 16@23c; turkeys, 15@18c per lb.

Boston.

Wool.—About all that can be said of this trade is to repeat what has already been written. The manufacturers want material but are not inclined to pay the prices asked, while the farmers and wool producers in general are holding out for the prices asked earlier in the season. The result of these conditions is that practically no transactions are being carried on, either with the manufacturers or the growers. A year ago consignments

were coming in rapidly; now there is little movement. The farmers are generally hopeful that they will get what they want or at least liberal concessions over the prices offered by the brokers. The following are the leading quotations for domestic grades: Ohio and Pennsylvania fleeces—No. 1 washed, 36@37c; delaine washed, 35@36c; XX, 33@34c; fine unmerchanted, 27@28c; 1/2-blood combing, 28@30c; 3/4-blood combing, 28@30c; 1/4-blood combing, 26@27c; delaine unwashed, 26@27c; fine unwashed, 23@24c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 22@23c; delaine unwashed, 23@25c; 1/2-blood unwashed, 27@28c; 3/4-blood unwashed, 27@28c. Kentucky, Indiana and Missouri—1/2-blood, 30@31c; 1/4-blood, 28@30c.

Elgin.

Butter.—Market is firm at 28c per lb., which is the quotation of a week ago.

THE LIVE STOCK MARKETS.

Buffalo.

May 30, 1910.

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

Receipts of stock here today as follows: Cattle, 150 cars; hogs, 11,200; sheep and lambs, 6,600; calves, 2,000.

Receipts of cattle here today, 150 cars, and the general market was 10@15c lower on the dry-fed stuff, and the grassy stuff sold from 25@40c per hundred weight lower; in some instances a half a dollar per hundred lower on bulls and cows.

We quote: Best 1,300 to 1,450-lb. steers, \$8.25@8.50; good 1,200 to 1,350-lb. do., \$7.25@7.75; best 1,100 to 1,200-lb. shipping steers, \$6.50@7.25; medium butcher steers, 1,000 to 1,100 lbs., \$6@6.25; light butcher steers, \$5.25@5.75; best fat cows, \$6.25@6.50; fair to good cows, \$4.75@5.25; common to good do., \$3.50@4; best fat heifers, \$7@7.25; good fat heifers, \$5.75@6.25; fair to good do., \$5.25@5.75; best feeding steers, \$5.25@5.50; medium to good do., \$4.25@4.50; stockers, all grades, \$3.50@4; best bulls, \$6@6.50; bologna bulls, \$4.50@5.50; light thin bulls, \$3.50@4.25; best milkers and springers, \$50@60; common to good do., \$25@45.

Milkers and springers sold from \$3@5 lower today; receipts were mostly on the common order.

With 70 cars of hogs on sale today, the market opened about steady to strong with Saturday's close, and continued steady throughout the day, with a good clearance.

We quote prices as follows: Mixed, medium and heavy, \$9.75@9.85; good weight yorkers and light mediums, \$9.75@9.90; pigs and light yorkers, \$9.90@10; roughs, \$8.75@8.80; stags, \$7.50@8. Prospects look fair for the near future.

The lamb market opened active today, with most of the best lambs selling from \$8.85@8.90; few fancy at 9c. Market closed weak; all best handy weight lambs selling; few coarse and heavy lambs unsold. Look for lower prices balance of week. Sheep were active at 50c per hundred weight lower than last week. Most of the best wethers selling \$5@5.25. Don't look for much improvement in the sheep trade.

We quote: Handy lambs, \$8.85@8.90; heavy lambs, \$8@8.25; wethers, \$5@5.25; ewes, \$4.50@4.75; yearlings, \$6@6.50; cull sheep, \$2.50@3.50; skip lambs, \$4.50@5.25; bucks, \$3@4; veals, choice to extra, \$8.50@8.75; fair to good do., \$7.50@8.25; cull to common, \$6@7; light thin calves, \$5@6.

Chicago.

May 30, 1910.

Cattle. Hogs. Sheep.
Received today 13,000 31,000 11,000
Same day last year 12,624 31,568 8,185
Received last week 45,976 118,126 58,092
Same week last year 42,277 161,459 56,740

Today is a holiday, and the packing houses are closed. There were good hog receipts, and the demand was active at steady prices, the top being 5c lower than Saturday. Sales ranged at \$9.30@9.65, lots averaging 300 lbs. being discriminated against, with light hogs and butcher weights most favored. Boars sold at \$4@5, stags at \$9.35@10 and pigs at \$9.30@9.65, the heavier pigs selling the highest, while heavy stags sold below lighter ones. Cattle were in unusually small supply and sold at steady to 10c better prices, advances being wholly in the choice beefs. Sheep and lambs sold at steady prices, wethers being salable at \$4.85@5.25, ewes at \$3@5, bucks at \$3.75@4.75, yearlings at \$5.50@6.50, fed lambs at \$4@8.60 and spring lambs at \$5.75@9.35.

The hogs marketed last week averaged in weight 240 lbs., compared with 218 lbs. one and two years ago and 236 lbs. three years ago.

Sheep took a fall last week of 50@75c, while lambs sold off 15@20c for light, high-dressing lots and 35@50c for common and medium grades.

Cattle took a downward course last week, buyers taking advantage of good offerings on Monday and Wednesday to force a break, but most of the decline occurred on the latter day, packers and shippers holding off for more favorable terms. The week's sales of beef steers were largely at \$6.50@8, with a good showing of \$8.10@8.75 beefs on Monday. Prices for the week were largely 25c lower, the commoner light killers selling at \$5.50@6.50, while medium lots sold at \$6.75@7.25, good cattle at \$7.50@7.75, and choice to fancy heavy shipping steers at \$8@8.75. The poorer grassy steers were hit hardest, and butcher stock showed an even greater decline, cows and heifers finding buyers at \$4.10@7.25, with sales of canners and cutters at \$2.50@4, while bulls brought \$3.75@6.50. Indications point strongly to further reductions in all cattle that come into competition with grass cattle from Texas and other southern pastures, and even good cattle will doubtless sell off, for they have been selling abnormally high the past spring. Calves have had a large demand, and were advanced sharply, bringing \$7.50@8.35, with coarse heavy calves going at \$3.50@7.25. Milkers and springers had a very poor demand from eastern buyers at \$30@70

per head, and very few sold as high as \$60. There has been a slack movement in stockers and feeders at declining prices, farmers being generally busy with their corn planting. Stockers sold at \$4@5.75 and inferior to prime feeders at \$5.25@6.40. There has been a fall in stocker and feeder prices since their high time several weeks ago, and it is now possible to pick up what look like bargains in stockers, but many stockmen regard good feeders of strong weight as still too high to render the feeding proposition altogether safe. Grass everywhere is reported as unusually luxuriant, and many farmers who have cattle not yet fat are turning them out on grass.

Hogs have been coming to market recently in increasing numbers, as is usual at this time of the year, and there has been an excellent local packing demand for hogs to cut up into fresh meats, as well as into cured meats and lard, but last week saw such a marked reduction in eastern shipping orders that it was impossible for sellers to prevent some sharp declines in prices. Still the market was not in as bad shape as might have been expected under such circumstances, and some good rallies in values took place, accompanied by good buying. There was a prevailing feeling among purchasers that stockmen would not continue to market their hogs freely if prices were lowered too much, and this evidently acted as a stop to the downward movement at different times. In quality there was no cause for complaint, and it was universally admitted that better hogs were never marketed. Corn is nearly everywhere abundant and comparatively cheap, and no better use can be made of it than by feeding it to thriving young hogs. The speculators in hogs were bullish in sentiment and carried over a good many hogs from one day to another, refusing to sell except on their own terms. Most of the hogs received were well matured, and pigs were scarce and sold as high as the best hogs.

Sheep and lambs have been selling at practically buyers' own figures, with a continued extremely small eastern shipping demand, leaving local killers to fix values. The receipts were comparatively large, although on a smaller scale than in recent weeks, and while there were rallies in prices for choice fed lambs, as well as in prime spring lambs, medium and common grades of both sheep and lambs were extremely bad sellers at all times. The course of the market in recent weeks has been both a disappointment and a great surprise to sellers generally, and it turns out that more flocks were fed than was at first supposed. Buffalo, Pittsburgh and other eastern markets have been rendered independent of Chicago by the liberal supplies forwarded from Michigan, Ohio and Indiana, and supplies here were excessive, with little except a local demand. Colorado high-dressing lambs were the best sellers at all times, aside from choice "springers," which were relatively scarce. Heavy fed lambs were discriminated against.

Horses continue to be marketed in decidedly smaller numbers than a year ago, but it is about as difficult as ever to dispose of plain and second-hand horses to advantage, and they sell \$5@15 per head lower than at the best time during the spring, when farm mares and small southern chunks were in such good request. Good animals are having a good outlet, however, with strong prices paid, and heavy drafters are especially active. Draft horses of good quality are selling at \$175@275, with occasional sales of fancy animals at \$300@350. Drivers and saddlers are active at \$150@300, and wagon horses are good sellers at \$150@200. Young feeders are wanted at \$170@225 to ship to Ohio and Pennsylvania. F.

LIVE STOCK NOTES.

According to reliable information based on careful research, the present supply of cattle in Illinois, Indiana, Iowa, and contiguous territory is not only less than a year ago, but is considerably below normal supplies. There is a wide-spread sentiment among farmers in this region that the high price of farm lands makes feeding cattle as a rule an unprofitable industry.

Spring lambs are being marketed thus far in limited numbers from Tennessee, Arizona, Illinois and other states, their average quality being none too good. The lamb "crop" is late this year, and marketing will be delayed for this reason. After fed stock is out of the way, there will undoubtedly be a strong demand for the youngsters.

Reports from Utah state that two million sheep are being sheared, the clip being approximately 13,000,000 pounds, and it is reported that the bulk of the wool was contracted for at 18 to 22c a pound as long ago as last autumn.

The tremendous drop that has taken place in sheep and lamb prices has been a surprise, as well as a bitter disappointment, to shepherms. Low prices are expected until Ohio, Indiana and Michigan sheepmen dispose of their flocks. More feeding was done than was generally supposed, and owing to an unusually early spring, sheep and lambs got fat earlier than usual, while the high prices tempted their owners to rush them to market simultaneously, thereby breaking prices.

Farmers who own growing pigs are giving them all the corn they can get away with, and the result is the best hogs ever shipped to market. Inferior hogs are scarce articles, and extremely few pigs are offered in the markets of the country. As a general rule, the pigs are healthy, and sickness seems to be unusually rare among the pigs in the middle west.

Heavy sheep and lambs are discriminated against by buyers and have to sell at quite a discount, the popular demand being for lamb rather than mutton. Old-time mutton is seldom called for, nearly everybody asking for lamb at the retail markets, and this works against the sale of sheep at the stock yards, especially at the present time, when there is no export demand worth mentioning.

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

June 2, 1910.

Cattle.

Receipts, 431. Market active and 25c higher than last week account of very light run.

We quote: Extra dry-fed steers and heifers, \$7@8; steers and heifers, 1,000 to 1,200, \$6.25@7; steers and heifers, 800 to 1,000, \$5.50@6.25; grass steers and heifers that are fat, 800 to 1,000, \$5@5.75; grass steers and heifers that are fat, 500 to 700, \$4@5; choice fat cows, \$5.50@5.75; good fat cows, \$4.75@5.25; common cows, \$3.50@4; canners, \$3@3.25; choice heavy bulls, \$5.50@6; fair to good bolognas, \$4.25@4.85; stock bulls, \$3.75@4; choice feeding steers, 800 to 1,000, \$4.50@4.75; choice stockers, 500 to 700, \$4.50@5; fair stockers, 500 to 700, \$4@4.50; stock heifers, \$3.50@4; milkers, large, young, medium age, \$4@5.50; common milkers, \$3@3.50.

Roe Com. Co. sold Newton B. Co. 35 butchers av 707 at \$5.40 to Goose 3 cows av 1,013 at \$4.20 and bull av 1,120 at \$5.25; to Sutton 2 stockers av 420 at \$4.50; to Sullivan P. Co. 4 butchers av 492 at \$5.60 do av 608 at \$4.75.

Bishop, B. & H. sold Sullivan P. Co. 1 bull weighing 730 at \$4.50, 4 steers av 720 at \$5.50, 2 cows av 800 at \$4.10 do weighing 850 at \$5.10, 1 bull weighing 940 at \$5.30, 3 cows av 910 at \$5.10, 1 do weighing 830 at \$3.50; to Davenport 7 stockers av 400 at \$4.50; to Lingeman 4 steers av 742 at \$6.50; to Kamman 2 cows av 970 at \$3.40; to Sullivan P. Co. 1 bull weighing 1,170 at \$5.50, 4 steers av 792 at \$6.10, 1 cow weighing 1,150 at \$4.50, 3 do av 1,026 at \$5.50, 3 steers av 813 at \$6.60; 10 do av 985 at \$7.20, 2 cows av 910 at \$4.50, 2 do av 1,035 at \$4.50, 5 do av 972 at \$5.75, 3 steers av 950 at \$6.60, 2 do av 1,250 at \$8.30, 3 do av 800 at \$6.50, 6 cows av 1,125 at \$5.50, 1 bull weighing 1,140 at \$5; to Thompson 2 heifers av 740 at \$4.50; to Mich. B. Co. 8 butchers av 1,087 at \$5.50.

Haley & M. sold Sullivan P. Co. 7 butchers av 520 at \$4.65, 2 cows av 930 at \$3.75, 3 do av 773 at \$3.25, 1 do weighing 1,060 at \$5.50, 3 do av 1,266 at \$5.12, butchers av 748 at \$5.35, 7 do av 686 at \$4.90; to Lingeman 2 steers av 850 at \$6.50; to Kamman 2 do av 700 at \$5.50, 1 bull weighing 460 at \$4.25, 3 cows av 983 at \$4.10, 1 do weighing 720 at \$3; to Bresnahan 5 butchers av 490 at \$4.25, 11 do av 536 at \$4.50, 4 do av 437 at \$4.25; to Thompson Bros. 1 bull weighing 830 at \$4.85, 2 cows av 925 at \$3.60, 1 bull weighing 970 at \$4.85, 1 heifer weighing 750 at \$6.30, 3 cows av 960 at \$4.85, 7 steers av 734 at \$5; to Sutton 13 stockers av 525 at \$4.65, 15 do av 480 at \$4.65, 8 do av 477 at \$4.65; to Fronn 7 heifers av 720 at \$5; to Heinrich 28 steers av 764 at \$6.10; to Sullivan P. Co. 3 cows av 1,147 at \$5.50, 1 do weighing 1,050 at \$4.50.

Spicer & R. sold Sullivan P. Co. 1 cow weighing 1,090 at \$4.50, 2 do av 690 at \$3.25, 1 do weighing 750 at \$3.25, 15 steers av 885 at \$6.15, 3 do av 643 at \$5.50, 2 do av 635 at \$4.20, 2 do av 600 at \$5.10, 1 bull weighing 930 at \$4.50, 1 do weighing 1,300 at \$5.25, 1 cow weighing 1,100 at \$5.50.

Bohm sold Sullivan P. Co. 4 butchers av 750 at \$5.40, 2 cows av 930 at \$4.50.

Robb sold Breitenback Bros. 6 butchers av 833 at \$5.75, 2 do av 695 at \$5.50, 3 cows av 1,200 at \$4.75, 2 do av 760 at \$3.50.

Veal Calves.

Receipts, 1,018. Market strong at last week's prices. Best, \$8.25@8.50; others, \$4@8; milch cows and springers steady.

Spicer & R. sold Prong 16 av 125 at \$7.90; to Goose 9 av 150 at \$6.25, 2 av 140 at \$8.25, 10 av 109 at \$6.60; to Thompson Bros. 38 av 140 at \$8.15; to Mich. B. Co. 17 av 130 at \$8.60, 6 av 155 at \$8.10, 23 av 140 at \$8.25; to Wilson 10 av 138 at \$8.30.

Belheimer sold Barlage 19 av 135 at \$8.25.

Groff sold Thompson 9 av 160 at \$8.50.

Roe Com. Co. sold Mich. B. Co. 18 av 125 at \$8.34, 3 av 135 at \$8.25; to Sullivan P. Co. 6 av 155 at \$8.50, 6 av 150 at \$8.50, 2 av 190 at \$7; to McGuire 21 av 160 at \$8.50.

Bohm sold Street 3 av 155 at \$6.70, 7 av 150 at \$8.50.

Haley & M. sold Newton B. Co. 22 av 140 at \$7.50; to Hammond, S. & Co. 5 av 110 at \$6.30, 30 av 140 at \$8.50, 5 av 130 at \$6.22, 2 av 135 at \$8; to Sullivan P. Co. 3 av 135 at \$6.19, 19 av 120 at \$8; to Newton B. Co. 24 av 125 at \$7.50; to Goose 10 av 153 at \$6; to Freidman 14 av 135 at \$8; to Burnstine 15 av 130 at \$8.

Kendall sold Newton B. Co. 14 av 155 at \$8.50, 32 av 140 at \$8.25.

Bishop, B. & H. sold Sullivan P. Co. 7 av 150 at \$8.50, 2 av 145 at \$6.50, 5 av 160 at \$8.50, 6 av 125 at \$8.60, 5 av 140 at \$8.50; to Parker, W. & Co. 24 av 140 at \$8.15, 24 av 145 at \$8.25, 2 av 140 at \$5; to Mich. B. Co. 15 av 135 at \$8.50, 35 av 150 at \$8.25; to Brant 21 av 120 at \$7.90; to Goose 19 av 130 at \$8; to Burnstine 4 av 150 at \$8.25, 8 av 150 at \$8.25, 12 av 155 at \$8.50; to Rattkowsky 11 av 140 at \$8.25; to Sullivan P. Co. 4 av 160 at \$8.20, 20 av 130 at \$8.25, 10 av 167 at \$8.25; to Burnstine 4 av 150 at \$8.25, 8 av 150 at \$8.25; to Rattkowsky 7 av 150 at \$8.25; to Sullivan P. Co. 10 av 145 at \$8.25.

Sheep and Lambs.

Receipts, 705. Market steady at Wednesday's prices; 25c lower than last week on common grades.

Best lambs, \$8@8.25; fair to good lambs \$7@7.25; light to common lambs, \$5@5.75; ewing lambs, \$3.75@3.90; fair to good sheep, \$4.25@4.75; culs and common, \$2.50@3.

Roe Com. Co. sold Goose 11 sheep av 125 at \$4; to Thompson Bros. 17 do av 120 at \$4; to Mich. B. Co. 20 lambs av 80 at \$7.75.

Belheimer sold Barlage 3 sheep av 135 at \$3.50, 30 lambs av 68 at \$7.75.

Merritt sold Fitzpatrick Bros. 30 lambs av 70 at \$7.50, 5 sheep av 108 at \$4.16, 16 spring lambs av 55 at \$8.

Haley & M. sold Sullivan P. Co. 1 buck weighing 170 at \$3, 2 spring lambs av 50 at \$9, 3 sheep av 125 at \$4, 6 lambs av 85 at \$8; to Newton B. Co. 3 sheep av 140 at \$4.25; to Hammond, S. & Co. 11 do av 90 at \$4.25; to Barlage 22 do av 90 at \$2.50.

Bishop, B. & H. sold Breitenback Bros. 87 lambs av 67 at \$8, 4 sheep av 110 at \$3.50; to Sullivan P. Co. 3 do av 110 at \$4.50, 18 lambs av 80 at \$8.25; to Hammond, S. & Co. 4 sheep av 110 at \$3, 4 spring lambs av 65 at \$9; to Fitzpatrick Bros. 4 do av 60 at \$9, 17 do av 55 at \$9, 9 lambs av 80 at \$7, 23 do av 60 at \$7.50, 20 do av 55 at \$5.50, 19 sheep av 80 at \$4.50, 15 do av 120 at \$4.25, 51 mixed av 60 at \$5.25, 21 lambs av 60 at \$7.50, 10 spring lambs av 59 at \$8.75; to Eschrich 15 sheep av 65 at \$4.

Hogs.

Receipts, 3,303. Packers bidding \$9.50 @9.60 for all grades; nothing sold up to noon. Market closing 10c higher than last Thursday.

Range of prices: Light to good butchers, \$9.50; pigs, \$9.50; light yorkers, \$9.50; stags 1/4 off.

Bishop, B. & H. sold Parker, W. & Co. 1,055 av 190 at \$9.60, 503 av 170 at \$9.55.

Roe Com. Co. sold Sullivan P. Co. 310 av 198 at \$9.60.

Haley & M. sold same 304 av 200 at \$9.60.

Sundry shippers sold same 50 av 185 at \$9.60.

Spicer & R. sold Hammond, S. & Co. 670 av 190 at \$9.55.

Sundry shippers sold same 325 av 190 at \$9.50.

Friday's Market.

May 27, 1910.

Cattle.

Receipts, this week, 930; last week, 1,473. The run of cattle at the Michigan Central stock yards Friday was very light, but the few offering found a ready sale at prices full steady with those of Thursday for all grades. Milch cows and springers also were steady.

We quote: Best steers and heifers, \$7; steers and heifers, 1,000 to 1,200, \$6@6.75; steers and heifers, 800 to 1,000, \$5.50@6; grass steers and heifers that are fat, 800 to 1,000, \$5@5.50; grass steers and heifers that are fat, 500 to 700, \$4@4.75; choice fat cows, \$5@5.50; good fat cows, \$4.50@4.75; common cows, \$3.50@3.75; canners, \$2.50@3; choice heavy bulls, \$5.25@5.75; fair to good bolognas, \$4.25@4.85; stock bulls, \$3.50@4; choice feeding steers, 800 to 1,000, \$5@5.50; fair feeding steers, 800 to 1,000, \$4.50@5; choice stockers, 500 to 700, \$4.50@5; fair stockers, 500 to 700, \$4@4.50; stock heifers, \$3.50@4; milkers, large, young, medium age, \$4@5.50; common milkers, \$2.50@3.

Bishop, B. & H. sold Kamman B. Co. 1 heifer weighing 740 at \$5.40, 4 steers av 952 at \$6.10, 10 do av 946 at \$5.40, 3 cows av 870 at \$4; to Breitenback Bros. 3 canners av 703 at \$2.85; to Sullivan P. Co. 2 bulls av 1,480 at \$5.25, 1 do weighing 1,100 at \$4.50, 1 do weighing 1,800 at \$6.10, 1 cow weighing 1,300 at \$5.50, 1 bull weighing 1,110 at \$5; to Thompson Bros. 2 cows av 1,015 at \$4.50, 3 heifers av 753 at \$6.50; to Bresnahan 3 do av 506 at \$4.75; to Starrs 1 cow weighing 860 at \$4.10, 1 do weighing 560 at \$3, 3 steers av 1,000 at \$6.25.

Veal Calves.

Receipts, this week, 1,550; last week, 1,686. The veal calf trade was dull at a decline of 25c per hundred from Thursday. We quote: Best grades, \$8@8.15; others, \$4@7.

Bishop, B. & H. sold Nagle P. Co. 22 av 130 at \$8; to Sullivan P. Co. 1 weighing 130 at \$6.90, 9 av 155 at \$8.25, 2 av 125 at \$6.50, 6 av 120 at \$6.50, 3 av 140 at \$8, 7 av 125 at \$7, 30 av 155 at \$8, 10 av 141 at \$8; to Brant 9 av 135 at \$7.35; to Rattkowsky 15 av 140 at \$8.

Lucky sold Goose 17 av 135 at \$8.10.

Sheep and Lambs.

Receipts, this week, 3,317; last week, 2,696. The run of sheep and lambs was very light and the quality common. The prices paid averaged 25c lower than on Thursday on all grades.

Best lambs, \$8; fair to good lambs, \$7@7.50; light to common lambs, \$5@6; spring lambs, \$8@10; fair to good sheep, \$4.50@4.75; culs and common, \$2.50@3.

Bishop, B. & H. sold Haise 36 lambs av 65 at \$7; to Sullivan P. Co. 23 do av 75 at \$6.50, 13 sheep av 80 at \$3.50, 3 do av 117 at \$3; to Mich. B. Co. 14 lambs av 67 at \$6.50; to Nagle P. Co. 39 do av 65 at \$6, 28 do av 80 at \$7, 45 do av 62 at \$6.50.

Hogs.

Receipts, this week, 6,580; last week, 6,154. The hog trade was dull at Thursday's prices, all grades bringing \$9.50. Parker, W. & Co. bought about everything on sale.

Range of prices: Light to good butchers, \$9.50; pigs, \$9.50; light yorkers, \$9.50; stags 1/4 off.

Bishop, B. & H. sold Parker, W. & Co. 1,076 av 190 at \$9.50.

Roe Com. Co. sold same 85 av 190 at \$9.50.

Grass-fed cattle and meal-fed Texas cattle have been marketed liberally at Kansas City and St. Louis recently, and supplies are increasing at Fort Worth all the time. These cattle make cheap beef, and the tendency has been to depress prices for northern fed cattle on the grassy order in Chicago and other western markets. This process will undoubtedly continue for the future and will make cheaper beef, but choice beef is likely to remain dear in the markets of the country. Of late there has been a steadily widening tendency between choice and ordinary cattle, as is usual at this time of the year.

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.

Bronchitis.—Jersey cow coughs; when she walks any distance she wheezes. First began coughing the early part of last winter. Our local Vet. says the trouble is in the bronchial tubes and he has been treating her for the past 30 days, but she does not seem to improve much. She is in good condition and eats everything in the feed line that is put before her. When listening a rasping sort of sound is heard. Is there any danger from using her milk? J. H. M., Hope Mich.—Give cow a teaspoonful of powdered lobelia, a teaspoonful of powdered opium and a dessertspoonful of muriate ammonia at a dose in feed three times a day. Also apply equal parts turpentine, aqua ammonia and sweet oil to lower portion of windpipe once a day.

Navel Infection in Lambs.—Several of my two-week-old lambs have become lame. They are on good grass pasture and sheltered at night when stormy. I have been feeding ewes a mixture of sulphate of iron and salt, one part iron to 100 parts salt. Can this be injurious to the lambs? Mrs. O. B. T., Davisburg, Mich.—The lambs have become infected through navel. Apply one part carbolic acid and five parts vaseline once a day, but before making the application, apply peroxide-hydrogen.

Capped Hock.—Some two months ago my three-year-old colt must have met with an accident, causing capped hock. I applied a liquid blister, but it has failed to reduce the swelling. What had I better apply? J. P., Cadillac, Mich.—Active blisters do not give as good results in the treatment of capped hock as milder absorbent applications. Apply equal parts spirits camphor and tincture iodine every day or two. Some horses have a habit of kicking the side of stall and bruising the point of hock and poorly bedded horses very often bruise the cap on the bare floor.

Mild Case of Stringhalt.—I have a young, spirited horse which lifts one foot higher than the other when walking; do not notice it so much when he trots. H. G. B., Standish, Mich.—Your horse suffers from stringhalt and as it is very slight he may get over it during the hot weather. The only remedy I have any confidence in and have obtained satisfactory results from, is a surgical operation, removing a section of a small tendon below hock joint. This is not a difficult operation to perform; therefore, I suggest that you consult your veterinarian. The operation can be done without throwing the horse, if cocaine is used.

Gastric Colic.—My 14-year-old horse had a sick spell and our veterinary diagnosed the case as one of gastric colic. Ever since he has been sick his bowels have been active. I forgot to say he had considerable pain and I am somewhat inclined to think that he urinates too often. M. L. C., Maple City, Mich.—Your horse no doubt suffered from an attack of acute indigestion the result of food fermentation, or perhaps watering your horse too soon after feeding grain. This frequently washes the grain out of stomach into small intestines, which interferes with proper digestion of the food. Give him a tablespoonful of ginger, a tablespoonful of bicarbonate soda and two tablespoonfuls of powdered charcoal at a dose in feed three times a day; also give him a tablespoonful of salt once a day.

Infectious Abortion.—Cow has aborted three different seasons in succession, each time when her calf was about half matured. As this is a valuable cow I do not care to sell her to a butcher. Can I do anything to prevent her aborting again? Cow is still giving milk. H. R., Empire, Mich.—Infectious abortion in cattle is not easily gotten rid of, but by following the treatment prescribed it can be stamped out. I find that dairymen soon become indifferent about applying the treatment and soon discontinue it; therefore results must be unsatisfactory. Unless the genital tract can be cleared of germs that are producing irritation, your cow will always abort; however, after two or three abortions cows generally carry the calf the full nine months. Give your cow 1 dr. beechwood creosote at a dose three times a day, mixing it with food or give in water as a drench. Also dissolve 1 dr. permanganate potash in three quarts of tepid water and flush out vagina once a day through a rubber hose for not less than 30 days. There are other remedies that are fully as good, but much more expensive. As long as your cow has any vaginal discharge, or the mucus membrane of vagina is covered with inflamed patches, she is not cured.

Shoulder Sweeney.—Three-year-old filly is sweeneyed in both shoulders and I would like to have you give me the best treatment for an ailment of this kind and say whether it will do any harm to work her. J. F., Lake Odessa, Mich.—First of all, let it be understood that moderate walking exercise will assist in reproducing and growing the atrophied muscles of a limb and, as there is very little action in the high up shoulder muscles, work will do her no harm. Blister atrophied parts with cerate of cantharides every week until the shoulder gets well; or you may apply equal parts turpentine, aqua ammonia, tincture cantharides and sweet oil

as often as necessary to keep the parts slightly blistered.

Cow Coughs.—For past two months one of my cows has been coughing considerably. She is worse in morning than any other time of day. I have been giving her oil of turpentine, which appears to make her some better. Her appetite is good. My other cattle seem affected much the same way, only milder. C. H. F., Bellaire, Mich.—The same exciting cause has no doubt brought on a catarrhal affection in your cattle—perhaps a change from hot to cold in temperature is responsible for their trouble. Give a desertspoonful of muriate ammonia, two tablespoonfuls of powdered licorice and a teaspoonful of powdered lobelia at a dose in feed night and morning.

Feeding Heifers.—Will you inform me if I had better turn two heifers into rye pasture or not? These heifers will come fresh in about two months. G. F., Petoskey, Mich.—It is always dangerous to turn hungry cattle that have been poorly fed into such pasture as you mention; if allowed to run in the rye pasture, let them eat a reasonable amount, then take them out for they are apt to eat too much, and produce indigestion, resulting in bloat, and perhaps death.

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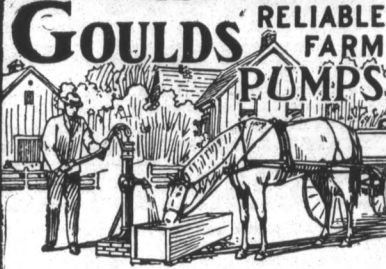
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CONDUCTED BY COLON C. LILLIE.

THE PROBABILITY OF OVER-PRODUCTION IN DAIRY PRODUCTS.

The fact that dairy products have been higher priced the last few years than usual has led many to believe that this will stimulate production to such an extent that there will be an over-production, and consequently, a falling-off in price. This would probably be a natural result from increased prices did not other things enter into consideration which would tend to counteract. In the first place, I do not believe that dairy products are excessively high when compared with the prices of other products, and with the cost of production. It is a question as to whether butter at 30 cents per pound is any higher in proportion than many other things which the farmer sells than it was a few years ago when it sold at 18 to 20 cents at this time of year. The cost of production at the present time is considerably in excess of the cost of production a few years ago. The farmer not only has to pay his hired help larger wages, but he doesn't get as much done in a day. The farmer has had to shorten his number of hours in the day's work, and consequently the simply increased price of wages does not measure the total excessive cost of labor. Dairy farmers used to milk and do the chores after they had done a day's work in the field. Now the chores are considered a part of the day's work, consequently there is not so much field work done. This enhances the cost of production just on the same principle of manufacturing. The laboring man has demanded an eight-hour day. Now he doesn't do any more work in an hour when he works eight hours a day than he does in an hour when he works ten, but he demands the same wage. Consequently the products he produces must be sold for a higher price, and this increases their cost, and consequently enhances their value. Besides this, the feed which the farmer produces is much higher than it was and so I believe that, comparatively speaking, dairy products are not excessively nor abnormally high. Then again, since other products produced on the farm are selling for a higher price, people are more apt to produce these to sell than they were before, and consequently this would have a tendency to keep people from dairying rather than to go into dairying. Dairying is hard work. It is confining work. A great many farmers do not make an attempt of dairying simply on this account. Twenty years ago there was no profit made in raising wheat. It was selling then around 50c a bushel. Today it is selling around \$1.00 a bushel. Now there is more profit in wheat today at \$1.00 a bushel than there was then at 50c a bushel, even though wages are high. Consequently the farmer is more apt to raise more wheat today than he was then. It's the same with corn, it's the same with hay, in fact, it is the same with everything the farmer produces with the exception of potatoes the last year. Consequently the dairy business will be a gradual growth. Increased investments will be made slowly and I do not anticipate that the production will be increased to such an extent that it will affect prices materially in the future. As a matter of fact, I do not believe that we need to look for very much lower prices for all kinds of dairy products, because unless the price stays up, people will go out of dairying, rather than go into dairying, and since these products are necessary, they will be governed largely by the production.

THE AYRSHIRE CATTLE AND THEIR NATIVE LAND.

Among the most popular dairy breeds of cattle, and not much, if any, behind the others in excellence, are the Ayrshires. The county of Ayrshire, their native home, is a large district bordering on the southwest coast of Scotland. Its greatest length is 78 miles, and the average breadth 14 miles. The general aspect of the country is undulating, presenting a succession of elevations and depressions, resembling the waves of the sea, and having a great number of lakes and small streams. The chief rivers are the Ayr and its tributaries (the Sugar and Doon) and the Garnock, Irvine, Girvin and Stincher. None of them are more than 35 miles long and would hardly be called rivers in America. The county is rich in valuable minerals, especially coal,

iron ore, and limestone. The climate is moist, but mild, and healthful. The soil along the coast is light and sandy, interspersed with deep loam. The most fertile districts are in the center where clay predominates. On the east side, facing the interior, are extensive moss and moor lands—a tract of open, barren, untilled land, sometimes marshy, but more or less elevated, and often overgrown with heather and (Calluna vulgaris), an astringent plant. Burns wrote:

"We'll sing Auld Corta's plains, and fells,
Her moors red brown wi' heather bells."

The farms in Ayrshire are generally small, averaging less than 90 acres each, and the agriculture previous to 1809 was extremely primitive and inferior to other parts of Scotland. But since that period there has been a vast improvement, by extensive drainage, better tillage, and raising superior stock in greater numbers, thereby providing the manure to enrich the farms. More cows are kept in Ayrshire than any other county in Scotland. Excellent butter, and some famous cheeses are made. Among the interesting antiquities to be found in Ayrshire are the ruins of Farnberg Castle, the family seat of Robert Bruce. Near the mouth of Bonny Doon, in the small cottage where the lyric poet of Scotland, Robert Burns, was born, and where before he was sixteen years of age, composed some of his immortal songs. Here is the old Allowa kirk, the ruins of the church where his tipsy hero, Tam O'Shanter, saw the witches dancing, and holding their midnight revel as he was on his way home from the tavern where he had been drinking with his jolly companions, and near by the bridge over which he made his lucky escape from the mad pursuit of the witches, only losing the old mare's tail which was caught by one of his foremost pursuers:

"Ae spring (of Maggie, his mare) brought
off her master hale
But left behind her ain gray tail."

Not far from here is the monument erected to Burns in 1825. Furnaces, iron-works, machine shops, coal mines and manufacturing establishments furnish an excellent home market for the agricultural and dairy products of the farmers of Ayrshire. Next in importance to the ability to raise good crops and dairy products is a nearby home market for their disposal.

The history of the Ayrshire cattle, like the history of savage tribes without a written language, is founded on tradition. There are no authentic records in existence to tell by whose patient labors, and painstaking efforts this excellent dairy breed was built up, and their milk-giving capacity developed. The old native breed of the country was rough, coarse, uncomely, resembling the height and breed of the present day.

Mr. Aytown, who wrote a treatise on the Dairy Husbandry of Ayrshire in 1826, describes them as a puny, unshapely race, not superior to those yet met with in the higher districts. They were mostly of a black color, marked with white on the face, the back and flanks. Few of the cows yielded more than six to eight quarts of milk in a day at the height of the milking season, or furnished when fat, more than 20 stone (280 lbs.) of dressed beef. In the language of the country, they were called "bokies" or "hawkies." It is stated that as early as 1750 the Earl of Marchmont brought from his estate in Berwickshire a bull and several cows which he procured of the Bishop of Durham of the Teeswater Durham, or Short-horn breed, then called the Dutch by most English breeders, because they had a large admixture of the Dutch or Holstein blood. It is also stated that others besides the Earl of Marchmont brought in foreign cattle resembling the same race. There is also a tradition that there was an importation of cattle of the Alderney, or Jersey, breed, into Ayrshire, and the tradition has very strong proof of its verity in the great similarity to be seen between the Jerseys and the Ayrshires. Were no such tradition in existence, the trained eye of the cattle breeder would quickly detect the points of resemblance, and be ready to affirm that the blood of the one had been mingled with the blood of the other, and that the proportion of Jersey blood was large, if it did not predominate. In the general resemblance of form, in color of skin, and shape of the horns, a Jersey might easily be taken for an Ayrshire. The cattle themselves furnish the strongest proof possible that the present dairy breed of Ayrshire was formed by a strong admixture of Short-horns and Jerseys with the native cattle of the country.

The modern cattle of Ayrshire are thus

After "Sousters"



A pan full of disks the maker says "souse as one piece."

"Sousing" or rinsing complicated cream separators is both unsatisfactory and unlawful, for laws are being passed to stop it.

Here is the South Dakota law:

"Cream shall be unmerchantable for buttermaking if it has been skimmed by a filthy, unclean, unsanitary or unwashed separator."

Other states are passing similar laws. Makers or agents who advise "sousing" are willing to make a law breaker of you, to cause you the loss of your cream, or make you liable to fine or imprisonment, in order to sell you a complicated machine. Wise dairymen let disk-filled and other complicated machines alone. They prefer simple, sanitary, easy to clean

Sharples Dairy Tubular Cream Separators

for Dairy Tubulars have neither disks nor other contraptions, yet produce twice the skimming force of common separators. The World's Best. World's biggest separator works. Branch factories in Canada and Germany. Sales exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines sells. Write for Catalogue 152.



The only piece inside Dairy Tubular Bowls.

30 Yrs

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA.
Chicago, Ill., San Francisco, Cal., Portland, Ore.
Toronto, Can., Winnipeg, Can.

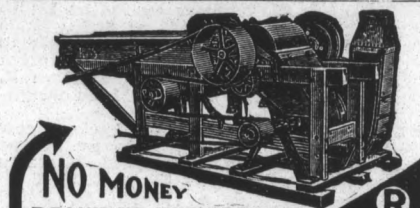
Farmer Agents Wanted

You can earn your own Cream Separator by giving a little time and effort to telling your friends and neighbors about the most wonderful invention in Cream Separator History—

THE CHICAGO SPECIAL

It's low Supply Can, easy cleaning, easy turning, few parts, dust and oil proof frame, enclosed gearing, high quality construction, and long life are fitting accompaniments of this wonderful new patented Skimming Device.

We make an attractive offer on the first machine in a community. Write at once for particulars. Do It Now. Address Kurtz & Company, 626 Monadnock Bldg., Chicago



NO MONEY REQUIRED WITH ORDER

We would sooner convince the buyer that his money was well invested before asking him to give it up. We only ask you to give our goods a chance to sell themselves. They are made so good they prove themselves a good investment without the aid of salesmen.

ROSS SILO FILLING MACHINERY

is not an experiment. It is backed by 60 years' experience—more experience than any other machinery of its kind that is made. It is known in almost every dairy and intensive farming district in the U. S., and outside of machines themselves, their owners are their best advertisements—our best salesmen.

Our large catalog tells a most interesting story about Ensilage Cutting and Silo Filling machinery. It is free. Write for it.

We also manufacture the Ross Silo

E. W. ROSS CO. Box 14 Springfield, Ohio

Write For Our Free Silo Book! Let Us Tell You How to Double the Returns from Your Corn Crop

You can double your profits too. 7000 users know from experience

THAT INDIANA SILOS ARE BEST AND CHEAPEST

Our Patented Morticed Joint

is an airtight joint that does not rust, and is self-draining. This joint makes Indiana Silos last TEN YEARS LONGER.

We will mail you our SILO BOOK and the SILO ADVOCATE—FREE. Write for them

INDIANA SILO CO.

382 Union Bldg. Anderson, Indiana

We Want Your Cream

Highest market prices, accurate weight and tests, weekly settlement. We have several creameries, write for location of one nearest you, and receive full information. Will send an interesting booklet if you mention this paper.

RUDELL CREAMERY
41 So. Division St. Grand Rapids Michigan.

described by Prof. Lowe: "They stand in the fourth, or fifth class of British breeds in respect to size; the horns are small, and curved inward at the extremity like the Alderneys, the shoulders are light, and the loins very broad and deep, which is a conformation most always accompanying the property of yielding abundant milk. The skin is moderately soft to the touch, and of an average yellow tinge which appears about the eyes and on the mammae. The prevailing color is reddish brown mixed with more or less white. The muzzle is usually dark, though often it is flesh colored. The limbs are slender, the neck is small, and the head free from coarseness. The muscles of the inside of the thigh technically called the "twist," are usually thin, and the haunch frequently drops much to the rump—a characteristic which exists likewise in the Alderney breed, and which, though it impairs the symmetry of the animal, is not regarded as inconsistent with the faculty of secreting milk. The udders are moderately large without being flacid. The cows are very gentle and hardy to the degree of bearing to subsist on ordinary food. They give a large quantity of milk in proportion to their size, and food consumed, and their milk is of excellent quality."

The Ayrshire cow, Alice Douglass, had a record of 407½ lbs. of milk in seven days. From February 10 to August 6, 1886, she gave 8,250 lbs. of milk. When four months in milk she made a record of 10 lbs. and 12 oz. of butter in seven days. Pennsylvania. J. W. INGHAM.

WATER SUPPLY IN PASTURE.

Cows need a constant supply of water. In the summer time when the days are warm and the amount of moisture perspired by the animals is large, there is a more urgent demand that water be convenient to the animals and abundant. The common practice of shutting the animals in the back pasture lot from early morning till milking time in the evening without a chance to get to water, is wrong. Either arrangements should be made so the cows may come to the barns for water or, better yet, a supply should be had in the pasture lot. A windmill can be easily and cheaply installed over a well in the field. The absence of buildings near will make a low derrick sufficient to get good results. With an overflow pipe properly arranged to carry away excess water, the mill may be left in gear constantly and will usually keep the animals well supplied with fresh water. The only care required is to keep the pump packed and the mill oiled. Nothing, of course, surpasses springs for this purpose but these are only to the few. A running stream is excellent, but the practice of making the cows go to stagnant pools for water cannot be too severely condemned, both on account of the health of the animals and the wholesomeness of the milk. Wayne Co. A. H.

FEEDING COWS ON PASTURE.

I wish to learn through your valuable paper about feeding cows. I have several cows that are going to be in fresh milk soon; they have all the grass to eat that they care for; also water. Now, I wish to know what else I could give them to produce the most possible milk and, also, at the least cost. I presume they just need some mixture in their drinking, or what would you do? I will watch for reply in the Michigan Farmer. Presque Isle Co. M. B.

It is a question of opinion whether it pays to feed cows that have good pasture any other feed or not, so far as profit is concerned. If you have a good pasture and an abundance of it, I don't believe that you will get pay for your grain as long as the pasture remains good. The cows will probably give a little more milk if they are fed a ration of grain in connection with this pasture, but I doubt if they give enough more so that you will get pay for your grain, but there is another question to take into consideration, and that is that the residuary effect of feeding this grain upon the animals. The Geneva experiment station, I think it was, made an experiment in this respect, and they found that, while at the time of feeding the cows did not give enough more milk to pay for the grain, yet those cows in the winter time produced enough more milk so they got pay for the grain from the residuary effects. The experiment was performed by taking a herd of cows and dividing them as nearly as possible and feeding half of them grain while on pasture, and feeding the other half none. Now the cows that were fed the grain did better the next winter than those that were not fed grain. If you do conclude to feed a ration of grain, I think

there is nothing better to feed in the summer time upon grass than corn meal and bran mixed half and half by weight. In the very flush of the pasture when the grass is the most delicious, you may find that many of your cows will not eat grain if you offer it to them, but after the first flush of the pasture is over with, then I think you will have no trouble in getting them to eat grain. If for any reason the pasture depreciates so that it does not furnish a full ration, then there isn't any question but what it will pay to supplement this pasture with grain, but the advice is given simply with the understanding that there is an abundance of pasture, that the cows can get a full ration of pasture. With many pastures, I might say with the average pasture, this is not so. On the average pasture I am positive that it will pay any dairyman to feed a grain ration at least once a day during the entire pasturing season, and after the first of July, after the first flush of the pasture is over with, it will not only pay pay to feed a grain ration, but it will also pay to supplement it with some coarse fodder, like peas and oats, or early corn, or green clover, or clover hay.

A CEMENT SILO.

I have been thinking of building a silo, and will now give my plan and wish to know if it is practicable or feasible. I believe the foundations of silos are generally made of concrete. If concrete makes a good foundation why not build the whole silo of that material? A barrel of cement mixed with five of sand to one part cement will make 17 cubic feet of concrete. If a silo is 11 feet in the clear and the wall six inches thick, each barrel of cement will build one foot in height of the wall. I would reinforce the concrete with hoops made of No. 8 or 9 wire, placed every six inches, where the doors did not interfere, and fasten to door frames at those points.

Cost of Material.

| | |
|---|---------|
| Thirty bbls. of cement at \$1.25..... | \$37.50 |
| Sixty wire hoops at 7c..... | 4.20 |
| Seven doors with frames, 175 ft. of lumber at \$30 | 5.25 |
| Seventy-five feet of inch, and 160 feet of 2x6 lumber to make forms | 7.05 |

Total\$54.00

In making the forms I would make the inside circle, and also the outside circle in eight sections each three feet high. Fill the forms full of concrete and, when sufficiently set raise the forms and fill again. I have not allowed for the lumber to build scaffold. That will be good after the job is finished. I have the best of sand and gravel. The cost of work to construct the silo has not yet been added. Thought we could do that ourselves, but think with that added, saying nothing about the roof, the cost would not exceed \$100.

Cass Co.

M. V. B. D.

I think that Mr. Dunning has figured out a practical silo. I see no objection to it. One thing he has forgotten, and that is that he will have to plaster this grout wall on the inside with a coat of rich cement mortar, made two parts fine sharp sand to one of cement, or else he will have some moldy silage around the outside. A grout wall made in this way will be rough so that the silage will not settle well. Not only this, but it will be porous and enough air will enter so that he will have spoiled silage next to the wall. To obviate this it should be plastered with this rich cement mortar. Then he will have a good, serviceable silo. He speaks about using No. 9 wire as a hoop, but I think it best to reinforce the wall with No. 9 wire. I would not put them on the outside but lay them right in the concrete as it is being built. Then your wires will be absolutely protected against the weather and be out of the way. Otherwise I see no unfavorable criticism for his plan of silo construction. It will certainly be a durable silo and I think he has figured safely within the cost, under his conditions.

A PROMISING ANIMAL.

We have started a year's authenticated test of Angela of Bleak House 233250, a daughter of Channel King out of Anna of Elma. She finished her first month on April 30, 1910, with 1434.4375 lbs. of milk to her credit, testing 5.413 per cent fat thus making 77.6461 lbs. fat during the first month of 30 days, which is 1.2798 lbs. more fat than Jacoba Irene made in her first month of 31 days. The two days she was tested by the Cornell University man, Angela made 5.332 lbs. fat. New York. H. S. GAIL.

Dust catches in the hair of those parts of the cow approximate to the teats and gets into the milk when it is being drawn. During the shedding period the dampening of the udder with a moist cloth before milking will cause the dust and dirt to adhere.

A JUNK PILE MOUNTAIN OF VERY EXPENSIVE CREAM SEPARATOR EXPERIENCE



(A sample pile of scrapped competitive separator bowls—the frames being broken up in the field to save freight on same).

During the year 1909 more than 10,000 enlightened and disgusted American users of poor or wornout competitive makes of separators threw them aside and replaced them with new

DE LAVAL CREAM SEPARATORS

on top of 8,500 having done so in 1908, 7,000 in 1907 and 5,000 a year for several years before, or at least 50,000 within ten years.

If it were possible to put these 50,000 machines into one huge "junk pile", as they have in fact gone into a thousand "junk piles", it would make a veritable mountain of cream separator experience, as impressive as Pikes Peak and representative of as much costly acquired separator experience as though it were a great mine of gold or silver.

These 50,000 "near" and "just as good" cream separators cast aside to be replaced with De Laval machines within ten years, and so many of them within a couple of years, cost their users at least three and one-half millions of dollars in the first place and probably wasted three times that much in quantity and quality of product, excessive repairs and excessive time required to put the milk through them while they were used, or a total of at least fifteen millions of dollars, and more likely twenty-five millions.

What has happened in America in this way has in the same time been doubled throughout the rest of the world, so that the total aggregates twice as much, or perhaps fifty millions of dollars. And worse still, this accounts only for those users who have recognized the facts and remedied them. There are thousands more users of inferior separators who have yet to do so, and unfortunately some yet embarking anew on this expensive separator experience of their own.

These figures are monumental, but they deal with a problem of enormous importance to everyone who has cream to separate from milk, which the average man can better appreciate put in this collective way than he can when applied to himself alone though it means exactly the same thing one way or the other.

The facts are all capable of proof to the man who cares to have them proved and who doesn't want to contribute at his own expense to this enormous and ever-increasing "junk pile" mountain of cream separator experience, or, better still, to the man who has been doing so and thinks it about time to stop.

To such owners we would say that the De Laval Company will this year continue its "trade allowances" for these old machines, because of the opportunity such exchanges afford in an educational way for the most practical illustration possible of the difference between good and poor separators, and thus putting a stop to the sale of others like them in the same neighborhood.

Any desired "trade allowance" information may always be had of the nearest De Laval local agent or of the Company directly.

THE DE LAVAL SEPARATOR CO.

| | | |
|------------------------------------|-------------------------------------|---|
| 165-167 BROADWAY NEW YORK | 42 E. MADISON STREET CHICAGO | DRUMM & SACRAMENTO STS SAN FRANCISCO |
| 178-177 WILLIAM STREET MONTREAL | 14 & 16 PRINCESS STREET WINNIPEG | 1016 WESTERN AVENUE SEATTLE |

HORTICULTURE

SPRAYING NOTES.

The first spraying after blossoming will be finished by the time this reaches the reader and we will have begun to go over the trees again. We are using lime-sulphur and arsenate of lead on part of the orchards and Bordeaux and arsenate of lead on the remainder. The former is rather in an experimental stage, but it has the earmarks of the coming spray. The results of this season's spraying will give something more definite than we can give at this time regarding its use in Michigan. There are several objections to its use as a substitute for Bordeaux: 1. It is more caustic, causing a smarting when it enters the eye, and creating a slight irritation on the skin. 2. When combined with arsenate of lead it makes a somewhat thick material which precipitates quite easily and tends to clog screens, more so than the Bordeaux mixture. (This refers to the commercial lime-sulphur solution used 1½ gallons to 50 of water). 3. It is slightly more expensive, though the difference is not worth considering, if it proves to be a good fungicide and does not russet tender varieties of fruit.

Its advantages over Bordeaux mixture are: 1. It is more easily prepared. (I refer to the commercial product). 2. There is less grit to cut out the pump than where Bordeaux mixture is used. When there is a good breeze and one is spraying from one side only there is little difference in the application, but if the breeze is so light as to be variable so it will blow the spray back upon the operator it is uncomfortable to use it, and the work will not be as thoroughly done as where Bordeaux is used and one does not mind having some blown in one's face. However, if the tree is sprayed with the wind and slightly sideways to it, and then sprayed again when the wind has changed enough to draw through the foliage in the opposite direction, a good job can be done using any kind of spray and none need be gotten on the team or operator. Unless the day is very quiet so we can throw the spray against the wind we do not attempt to finish the large trees at one time, but get them twice with a change of wind and call it one spraying. All our orchards were sprayed in this way before blossoming, and we are doing the same this time. More material will be used, but we are then sure of a pretty thorough job, and the work is more agreeable. We do not wait for the wind to change but get our trees well sprayed with a south or west wind, and when we get a north or east one hustle over the other side. Thus far this season the wind has changed very conveniently.

Our first spraying with lime sulphur, which should have been given before the buds opened was delayed by a delay in getting the materials, and the buds were opened by the warm March weather so this spraying was not completed until the blossoms began to open. We used various strengths from two to five gallons to 50 of water. We are observing these trees and will reserve a report on the results until we are sure how they will work out.

Calhoun Co.

S. B. HARTMAN.

TWIGS COVERED WITH LECANIUM SCALES.

Mr. Gibbs, of Ottawa county, forwarded to us a twig affected with a soft scale. Not being able to identify the pest it was sent to Professor R. H. Pettit, who replies in the following manner:

"Dear Sir:—Your letter with the specimens arrived this morning. I am very sorry that the species is not determinable. It is a Lecanium, or soft scale, all right. It belongs to a group in which I have taken a special interest for a long time but in this group there are comparatively few species well marked enough to be recognizable. Then, too, the host is not given and the specimens themselves are either past the point in their development when the structure could be made out or else they are diseased or parasitized. There are five females which have all gone into the final stage and the rest of the females are either diseased or parasitized. This is one of the most difficult groups in the entire insect kingdom and most of the determinations of species done up to date has been guess work. The structure of the Lecaniums is so simple and they all look so much alike that the classification up to the present time is really very unsatisfactory. Mr.

Sanders, of the Bureau of Entomology, has spent five years exclusively in trying to classify the American Lecaniums. He knows a few of them now but only a small proportion of the entire number. It is a Lecanium and related to the New York plum scale in a way, perhaps as near to that as any other well known form.

I am very sorry that I cannot give you any more definite information. I enclose the letter from Mr. Gibbs, that you may place it in your files.

Yours respectfully,

R. H. PETTIT."

Fruit trees are often attacked by different species of soft scale. Regarding their treatment the following from Professor Surface, of Pennsylvania, may be helpful. He is speaking of plum twigs that were badly infested:

"I should treat this pest at this time of year by taking a small paint brush and painting the scale on the infested branches, with a strong soap solution. Use ordinary soap and make it as thick as house paint. I should not use oil on plum trees, especially at this time of year, as it might injure or destroy them. It is now too late to spray with anything strong enough to kill the scale without damaging leaf and fruit. While painting trees will be a slow process, it will be sure to kill the pest and will doubtless prove to be the cheapest in the end.

"The Lecanium of peach and plum is a very difficult insect to kill by spraying and is not always held in check by any of the ordinary spray liquids for scale insects. This is why I would especially recommend the application of strong insecticide, at any time during the year, by applying it with a brush, thoroughly, on the infested parts of the bark, in such a way as to cover the pests. Doubtless any of the contact insecticides, if used strong enough, will do the work, and practically all, excepting the oils, will be safe in being free from injury to the trees when applied as described above."

GROWING CELERY.

I want to ask you for information about celery growing and cultivation and most suitable land to grow it on. I tried to get information from the state and the U. S. Department of Agriculture, but could not get any information from either place. I have heard of its being grown around Saginaw with good success the last few years. I understand they are not growing as much around Kalamazoo as they used to. Is this correct and if so what is the reason? I have understood that it grows best on muck soil and if so we ought to be able to grow it for there is plenty of good muck land around here.

Leelanau Co.

G. M. L.

The communications of our subscriber to the state and federal authorities must have miscarried, for they are always prompt and ready to reply to queries. The bottom and marsh lands about Saginaw are proving to be very successful locations for the production of celery. I believe it to be general information that the annual output of celery from the bottom lands about Kalamazoo for the past few years exceeds that of all former periods. There are instances where fields have not been properly cared for and fertilized, that the producing power is greatly reduced, but these instances are very rare where good judgment has been used in handling the land. The requirements for growing this crop include a cool, rich and very moist soil. The important thing is to have an abundance of water. For this reason the commercial growing of celery is largely confined to low lands or to plots supplied with conveniences for irrigation. In no instance should the water line fall below three feet during the summer, or the crop will suffer. The plants are usually started in seed beds and transplanted in the field. As the seeds germinate slowly you perhaps would have to purchase them for this year's crop, as they need to be started before this for the main crop. Strong plants should be selected. Have ground clean of rubbish and in perfect tith before transplanting is done. Cut back the plants to two-thirds or even one-half their size when transferring to the field so the roots may be able to keep up the supply of water until the plants are established. Make rows from two to three feet apart where bleaching is to be done by boards, and not less than three and one-half feet where soil is to be used. Set plants from six to twelve inches apart in the rows. Begin cultivation at once and keep it up till time for banking or placing boards for bleaching. We are of the opinion that much of the low lands in your county could be used for celery growing if there is an abundance of water and plant food. Should the land prove to be too acid from

excessive fermentation of vegetable matter an application of lime will overcome this.

THE 1910 FRUIT CROP.

There has been much comment as to the condition of fruits and the prospect for a crop this season by various writers, especially by reporters for newspapers. These reports are conflicting, but in the main are pessimistic. Visitors from different parts of this state and others, give various reports, insomuch as to lead me to believe that there is much variation in the damage done in different localities, which is usually the case with freezes.

For our locality, including a part of Calhoun, Kalamazoo, St. Joseph and Branch counties, my observations would lead me to believe the present prospects for fruit about as follows:

Apple trees mostly blossomed full, and although the blossoms remained on the trees much longer than usual, and the weather was cool nearly all of the blossoming period, with several quite hard frosts included, we still have a prospect for a good crop, barring an excessive June drop. In our orchards trees that did not bear a crop last season promise a full crop this year, while trees that bore a medium crop last year have the same this year, and those that bore a heavy crop last year, with the exception of Spies, blossom very little this season. We find much difference in the size of the different varieties at this time. On most of the varieties the main apple in the cluster is about the size of the end of a lead pencil, about right for the first spray after blossoming, while on some varieties they are nearly as large as hickory nuts. As a rule, we have not noticed as much difference as this. It is probably due to the early varieties having got through blossoming before the cold weather, and these apples grew during the cold spell while those that were in blossom but not fully fertilized were at a standstill. This makes a mixed orchard at a disadvantage for spraying.

Pears are likely to be a good crop on most trees that have come under my observation, most of them being well loaded with young pears which seem to have stood the frost well. A few varieties have few on, due more to its being an off year with these trees than to the season, I think.

Peaches have been injured but the crop is not all ruined as yet. A few varieties in our orchard still have enough for more than a crop, but the majority give promise of but a light crop, and some varieties, the later ones in our orchards, have almost no fruit remaining on them. Reports from some localities state that the peach crop is ruined, but I have not heard authoritative reports from much of the fruit belt.

Plums suffered from the recent frosts more than any other tree fruit, many of them being frosted so that they have turned dark and shriveled up on the trees. Some trees seem to have escaped serious injury, and some fruits or branches that were protected are still uninjured, but as a whole, I believe the plum crop will be very light in this locality.

Cherries suffered also, not so much from the late frosts as from the cold wet weather at blossoming time which blasted the blossoms. Some of our trees that blossomed full have hardly enough left on to feed a robin, while others still hold a partial crop. I do not believe we need expect a large crop of cherries this season.

Grapes were frozen brown, both leaf and blossom clusters. New leaf buds are starting, but it is doubtful if there will be much fruit. However, not being a grape grower I will not predict.

Raspberries and blackberries appear uninjured, and are beginning to show fruit buds in plenty.

Strawberries are likely to have a rather short season, as most of the early blossoms were killed, yet, barring further frosts there will be quite a crop of late blossoms and late varieties. Those plants that were held back by a mulch and did not blossom as early as others promise a fair crop as they had blossomed but little when the frosts came. We have picked a few ripe Excelsiors on a side hill with a southern exposure. These blossomed before the cold weather and are two or three weeks ahead of any other berries in the patch. I have heard many reports that there would be no strawberries, a condition I can not remember and one I do not believe will ever happen, however, the crop may be light and the season short, as it was last year.

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POULTRY AND BEES

RAISING CHICKS BY HAND WITHOUT BROODER.

Yes, it is easily done, at any time after the ground quits freezing. I find it much easier to bring a large percentage of chicks to maturity in this way than by the old method of allowing them to run with the hens, even though the old biddy may have hatched them. In the absence of an incubator, it is best, if one wishes to try raising chicks by hand, to set as many hens at one time, or within a day or two, as possible, since chicks of different ages must be kept separate; otherwise the older ones will crowd and rob the smaller of their share of the food and also smother them at night.

It will be necessary, of course, to keep the chicks confined. On a small scale I found that a 10-rod roll of fine-mesh chicken netting (one-inch mesh is about right) will enclose two yards each 15 ft. wide by 30 ft. long, without cutting the wire. I find the 24 or 30-in. height best, as one may easily step over it, thus doing away with gates. Each of these yards may be divided again with a fence or partition of wide or narrow boards, thus giving four pens or yards each 15 ft. square. Each pen will accommodate 50 chicks nicely while they are small. When they get larger they may be allowed to run where they wish, or be moved into other and cheaper yards. For coops, any warm, water-tight little coop or box will do, being sure to set it on a board floor, both for warmth and for convenience in cleaning. Do not forget that part. If cleaned every morning a very few minutes will be required.

In raising the chicks by hand you will have no trouble with lice, nor losses from old hens fighting and stepping on the chicks. Should the weather turn unexpectedly cold and you feel a little worried at night, or even through the day, set a jug of hot water in the center of each small coop. Be sure to place the jug (if you don't happen to have a jug handy a tin syrup pail is nearly as good), in the center of the coop so there will be space all around it; otherwise they may trample each other in trying to get the best place.

When hatching with hens I take the chicks, as fast as they become dry, and cover them well with an old blanket in a

with no bad results. Be sure to cleanse or renew the nest material before doing so, however. A MICHIGAN FARMER.

BEE VEILS AND GLOVES.

Though one can work with bees without a veil at times, it hardly is advisable to dispense with one on "general principles." One has to work too slowly if face protection is not used. If I could do just as much work without one I would not wear a veil. It makes a person sweat more readily as the air circulation is hindered. Then it is not so easy to see things through veiling.

Perhaps the most common face protection used by the box-hive bee-keeper is a piece of mosquito netting tied around the face in any clumsy fashion, but I would not use this kind. It is hard to see through and tears easily, too. It has only cheapness to recommend it.

Another veil is made from cotton tulle. This makes a real nice veil but it is not as easy to see through as silk veiling. The cotton tulle is also made with a silk front. The veil is made in the form of a bag open at the top and bottom. The top is gathered by a rubber cord and it is to be worn slipped over a hat. The lower ends are pulled under the suspenders. As it is quite a bother to put it over and to take it off the hat every time it is used, I bought a light summer hat and leave the veil on it throughout the season. This I call my "veil-hat." I like this kind of veil, but it tears very easily when "shining" up trees after swarms. However, it lasts just as well as any other kind made of cotton or like material.

As already said, when it is necessary to climb trees or work around shrubs the ordinary veil is liable to get caught. In this respect a wirecloth veil is ahead. The wirecloth will also stay away from the head and face so that cross bees have not so much chance to sting through. Cut a piece of wirecloth 11 inches wide and 2 ft. 10 in. long. Roll it into a cylinder and sew together with fine wire. For the top or head covering sew in a piece of muslin of about the same size as the wirecloth, drawing it together in the form of a circle with the tucks running toward the center. Also sew a piece of same material onto the other end, or the bottom of the cylinder. This cloth should be long enough to hang down about 15 inches. This kind of veil is worn without a hat. A small cap can be worn under it, though, if the sun's heat is felt too much.

Wirecloth veils to fit over a hat have



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box or basket. They won't peep if kept warm, but it is surprising how much cover they will require for the first 36 hours. After that begin by feeding sparingly, then increase to all they will eat up clean. Keep the yards well supplied with fine oyster shell and crushed egg shell.

Another point in favor of hand-raising where one has only a few hens is that as soon as the chickens are hatched the hens may be shut up for a few days and, if well fed, they will soon be laying, whereas if left with the chicks they will be idle four to six weeks or longer. Far be it from me to underestimate the value of good brooders, for well I know they are very valuable. But those who wish to try raising chickens without going to much expense will find the way described very satisfactory. With half a dozen hens one may easily raise a nice flock. By taking chicks away as soon as hatched, and being careful to give the hen good care, you may re-set the hen almost at once

also been made. In this case the wirecloth cylinder has to be made as large as the brim of the hat over which it is to be worn, and the top cloth has to be open enough to fit over the crown.

In making veils, don't use galvanized wirecloth, nor white veiling. They are not as easy to see through as black veiling. I like the wirecloth veils for durability and effectiveness in preventing stings, but have one objection to them—I find it harder to see through wirecloth than through silk veiling.

I don't use protection for the hands now, but did when I began bee-keeping. Gloves are very hot and inconvenient in warm weather, but, of course, the timid bee-keeper will have to stand it. Make the gloves without fingers, like ladies' summer mitts, and long enough to reach back several inches over the sleeves. Use cotton cloth of white color, and soak them well in linseed oil. The bees can not sting through such gloves easily.

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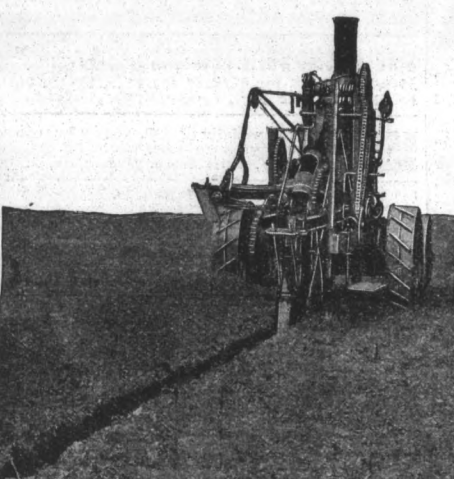
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