

MICHIGAN FARMER

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HAPPY NEW YEAR

DIVERSIFIED vs. SPECIAL FARMING.

For the average man diversified farming is much the safer and better. It goes slower, but if it does, it goes slower both ways; one's profits may not be as large and likewise when he has losses they are not so large, so it evens up. Specialized farming can be profitably and safely followed only by a few under special conditions with regard to climate, market, and capital. It is too risky. It is like putting all one's eggs in one basket. All goes well until one stumbles and falls, and then he regrets.

But specialized farming is fascinating. It makes one's blood flow faster to read that Mr. Morrell sold \$40,000 worth of peaches in one year. That an apple crop brings one in thousands and thousands of dollars with very little effort on his part. A man who produced thousands of bushels of potatoes this year, if he could get them harvested without loss, is in luck, and the same could be said of many crops for occasional years and conditions, and where one has the market and the capital to bridge over a lean year in numerous instances it may pay to adhere to specialized farming, but as I say, the average farmer cannot afford to do it. It is finicky. Even in the renowned fruit belt of Western Michigan where commercial fruit growing is supposed to be as profitable as any place in the world and perhaps more so, there come years when if a man had all of his capital and energy tied up in a commercial peach orchard, unless he had a bank account he would become bankrupt, at least he would have no income. In the early days of commercial peach growing in Western Michigan people made enormous profits and some of them seemed to think that this condition of affairs would last forever. They lived extravagantly and improvidently and when that fatal disease, yellows, came along and destroyed their orchards they were well night devoid of other resources and were in an extremely sad condition. At one time a certain district south of Jacksonville, Fla., was considered one of the most favorable localities for orange growing in the world. There were beautiful and magnificent orange groves. They seemed to produce every year. A man who owned an orange grove there needed no other income. His income seemed to be safe and sure. People were confident that those orange trees would continue to bear year after year and year after year and yield them their princely incomes. They grew nothing but oranges. The hay and the grain necessary to feed the animals that were needed in cultivating the orchards were purchased in the north. All that was needed for themselves was purchased from outside. They produced nothing but oranges. But there came a year when Jack Frost made a visit farther south than he usually does and these magnificent orange trees were utterly destroyed. People who had reveled in wealth found themselves in one night devoid of an income or any visible means of support. I have been told that a number of people committed suicide after the severe frost which ruined the oranges in this particular locality of Florida. I saw this section after this freeze and saw the ruin wrought; the stumps of the old orange trees, with here and there a new shoot coming out fresh and green. The houses were in a tumbled down condition; the old orchards were grown up to grass, brush and weeds; not a habitable house was in sight. This was one of the most deplorable sights I ever saw in my life, and yet this was the result of highly specialized farming.

The history of agriculture the world over in all ages will bear me out in saying that the strictly specialized farming, persistently followed, brings ruin, and nothing but ruin. The wheat farms of the northwest prove this. The growing of cotton year after year on the fertile soils of the south have demonstrated it beyond doubt. The corn growers in the celebrated corn belt have profited by examples like this and are chaging to a rotation of crops in order to husband the fertility of their soil and save their land from ruin.

Suppose a man in Michigan had nothing but beans this past season. What would be his condition? Supposing a few years ago a man had his whole farm into potatoes. He would have been ruined. The only safe rule for the average man under average conditions is to practice diversified farming.

While I do not believe in specialized farming, I do believe in having a purpose in farming. I believe in having a purpose

and a regular plan and following this persistently year after year. Every farmer ought to have some crop or some phase of farming as the leading source of his income; some crop or some product that he can depend upon to bring him in a living, and the plan should be to secure the largest income from this central or main purpose. Besides that he can have other crops, special crops to improve his soil and crops grown in connection with this system of farming to bring him in extra money, which take away the risk of failure for his main crop or purpose, and which in favorable years brings extra profit. For instance in my own farming, my plan is to have the sale of dairy products the leading purpose in farming. My aim is to keep a commercial herd of dairy cows and get the most profit out of them. Consequently I must grow corn silage and clover as a basic crop and peas and oats for a grain ration for the cows and I do everything that I know how to produce these rations as cheaply as possible.

My intention is to keep a large enough herd of cows so that the sales resulting from this industry will pay the entire expenses of the farm. In addition to cows we keep hogs and hens. But these industries are logical adjuncts to the dairy because dairy waste products are consumed and often the work fits nicely with the dairy business, and they can be made part of it. Now, with these three live stock industries we can live and pay expenses and there is little chance of loss. Should the crops almost entirely fail we could go outside of the farm and buy our feed for the cows and the hogs and the chickens, bring it onto the farm, feed it carefully, and make a profit. There is not very much risk in this kind of farming. I selected this system of farming largely because I had to, because I began with a limited capital and began in debt, and I couldn't afford to take any risk. If I had taken the risk and put the whole farm into wheat and it had been a favorable year then I could have made a large payment on the debt and perhaps got out of debt in this way sooner, or, if I put the whole farm into beans or any special crop, if conditions had been favorable I might have gotten out of debt sooner; but, on the other hand, had conditions been unfavorable I might have lost the farm. I thought this thing over carefully and decided that it was better to make haste slowly, and I believe I was right.

Now, besides the live stock industry we grow sugar beets and wheat and usually potatoes. If we are lucky enough to make a profit on these crops over and above the cost of production, then that profit is added profit, and if we do not make a profit on these crops we are not ruined because the main purpose in farming invariably pays the expenses. I once tried 40 or 50 acres of sugar beets but I gave it up. In order to raise that many beets I neglected the main purpose in farming of growing corn and clover and oats and peas for the cows, and proper care of the dairy cows, and so I had to give it up and confine myself to about 10 or 15 acres of sugar beets per year. We can handle that amount in connection with the dairy by hiring a certain amount of extra help and we can do the job fairly well without very much risk, and besides the by-products of the beet crop can be utilized to the full extent on the dairy farm. The tops make a valuable food, a food well worth preserving for the dairy cows. I also grow wheat and while we sell the wheat, we need the straw for bedding for the cows and other live stock and I do not see how we could well get along without growing wheat on a dairy farm. While this system of farming brings in no unusual profits it is safe. Take it over a period of several years on the average, I imagine it will pay in Michigan at least as well or better than specialized farming.

Because I select dairying as my purpose in farming I do not wish it to be understood that I think dairying is the only business that can be used as a main purpose in farming. Not at all. A farmer is left to select that particular phase of farming which he likes best, and to which his farm and his conditions are best suited and use that for the main purpose in farming. One might make the breeding of horses the leading purpose in farming and perhaps make more than he would out of dairying. Another man might take the production of wool and mutton as a leading purpose, and still another might take a crop like potatoes and, without specializing too much, raise

them with other crops which would help him out when conditions were against the potato crop and make more money than I can in dairying. So one can select, as I say, most any phase of agriculture as a leading purpose and have other crops subservient to that.

If one had a special fruit location he would be foolish if he did not utilize it, but I do not believe that it would be wise for the average man to plant his whole farm to fruit and depend upon it entirely. It would be much better, in my opinion, if he lives in some favorable locality for fruit, to have some other kind of farming in addition to that which might help him out when conditions were against the fruit. If a man had sufficient capital, other conditions being favorable, no doubt he could win out on a specialized system of farming. If he had a total failure one year and still had sufficient capital to bridge over until he could get another crop, or perhaps it might be necessary to bridge over more than one year, but if he would stick to this specialty and had sufficient capital so that he could afford to, I have no doubt that in the end he would win out and perhaps be as prosperous or, at least, make as much profit as others would with general farming. But most of us haven't sufficient capital; most of us must make our living every year; most of us have debts that must be met every year, and the only safe and sane way is to devise a system of farming and farm management under our conditions which will bring in a reasonable profit every year, and no specialized farming can be depended upon every year. There comes a year, despite the wisest of farm management, when one special crop is almost a failure. It is wise to guard against being caught that year and you can do so in no other way as safely as by diversified farming.

COLON C. LILLIE.

FARM NOTES.

Alfalfa and Quack Grass.

I would like to ask through your valuable paper if there is any reader that has had experience with alfalfa where there is a little quack grass. I have an eight-acre field which I would like to seed to alfalfa in the spring if it would be a success. It was a question in my mind which would kill out first, alfalfa or quack grass, both having very long roots. Ingham Co. SUBSCRIBER.

It would not be advisable to sow alfalfa on land infested with quack grass until the latter has been eradicated. The problem involved is not which of these two plants would "kill out" first if well established on the same field, but rather one of getting the alfalfa established in the first place, which would be difficult if not impossible, where it has quack grass to contend with. Alfalfa needs favorable conditions in order to get well established and make a good, even stand. When once well established it will, under favorable conditions, endure for many years. However, it should not be asked to compete with quack grass, something which no other crop can successfully do. It would be the better plan, and far more profitable in the end to first eradicate the quack grass. This can be accomplished in a single season by clean cultivation, either in the summer fallow or by growing a hoed crop, such as roots and keeping every spear of grass out by frequent cultivation and hoeing. Another and cheaper method is described in farmers' bulletin 464, by which quack grass can be destroyed in meadows and pastures during the midsummer period just after haying, when the time can best be devoted to the work. This method briefly described, is as follows:

First plow the sod, cutting just under the turf, which is usually about three inches deep. To thoroughly turn over a stiff quack grass sod as shallow as three inches it is advisable to use a type of plow with a long, sloping mold board. A week or ten days later go over it with a disk harrow and thoroughly disk the sod. Repeat this treatment every ten days or two weeks until fall, when the quack grass will be completely killed out. In case it is not possible to turn the sod on account of dry weather, the treatment can be given with the disk harrow alone. If the disk alone is used it should be set practically straight, well weighted with bags of dirt, and the field gone over three or four times. The first two cuttings should be at right angles and the other cuttings diagonally across. The sod in this way is divided into small blocks. Then the disk is set at an angle, when it will be found that the first two or three inches of sod, which contain practically all of the quack grass roots, can

be cut loose from the soil below. The exposure to the sun and the breaking loose from the lower soil soon kills out the quack grass. This ground should be gone over at intervals of ten days or two weeks throughout the remainder of the season. The following spring the infested land, on which the grass has been killed either by the disking method or by the combination of plow and disk, should be plowed to a good depth in order to bury the mass of dead roots thoroughly. If the work has been carefully done the quack grass will not show up at all in the spring crop.

WHY LEAVE MICHIGAN?

"Michigan, My Michigan"
Look around, where e'er you can
No state equals Michigan.
"Michigan, My Michigan."

Why should the people of Michigan go too much that may be found right here in prices for land that is not equal in value to much that may be found right here in our own state? The soil is not only equal to any to be found in the west or southwest, but for variety of profitable products there is no section of the country that can compete with our own state. No finer fruit can be grown anywhere, whether apples, peaches, pears, grapes, plums, cherries or the berry fruits. Vegetables of all kinds can be grown in abundance, and as good as the best, while the fame of our celery is as wide as the country. The potatoes we grow have no superior anywhere, the sandy lands of the northern part of the state being natural potato lands, and producing large and profitable crops of fine tubers. Even the "corn belt" states can produce little, if any, better crops of corn than we grow right here, and we have no corn weevil such as damages so much of the crop in the south. Our beans give large yields, and are equal to any grown. Wheat, oats, rye, barley, all yield abundantly, and of best quality of grain. Cucumbers, cabbage, etc., are grown in large quantities and sugar beets which we produce make the finest sugar, and bring a great many thousands of dollars to the farmers of the state each year, Michigan standing second among the states in the production of beet sugar. No state in the Union produces a greater variety, or finer pasture or meadow grasses than our own, from timothy to alfalfa. Until a few years ago it was not thought that alfalfa would succeed here, but now there are thousands of acres grown, and it is increasing in popularity rapidly as its value becomes known. With our abundant crops of corn and oats, and the grasses it is only natural that our live stock should be of the best, and so it is; our horses, cattle, sheep and swine are equal to the best, as may be seen by the splendid flocks and herds scattered over the state. The dairy industry is one of the most profitable which engages our farmers, and is increasing in importance every year. Our poultry—chickens and turkeys, ducks and geese, give very profitable returns for the labor and feed required. Although our timber supply is not what it used to be, yet the state still has a large amount of valuable hardwood. The butternut, black walnut and hickorynut are native trees, and produce abundant crops of these valuable nuts, while the English walnut, filbert, and Japan walnut can be grown profitably.

Where, in all the west or southwest can you find lands that will produce in such abundance, and such variety? Our eggs are not "all in one basket," and if one of our crops should fail, we have many others to give us good returns for our labors.

Because people outside the state do not realize the value of our lands, farms can be purchased at much lower prices than they are actually worth, this will soon be changed, as the agricultural possibilities of the state become better known; in fact, the prices have already begun to advance over what they were two or three years ago. Owing to the large bodies of water, our great lakes that so nearly surround the state, the winter climate is greatly modified, and our pure, bracing air, excellent water, and freedom from malaria, give us a climate that is surpassed by few, if any, states in the Union.

Again I ask the question, "Why should people leave Michigan?" And to it I will add another: "Why should not people in other states who want good homes or farms at very reasonable prices, come to Michigan and see what we have to offer?" Such people, who look over our state will not be disappointed. Come.

Eaton Co.

APOLLOS LONG.

OBSERVATIONS ON SPECIAL PHASES
OF MICHIGAN AGRICULTURE.

Some of Michigan is old settled, from a lumberman's standpoint, but comparatively new agriculturally. It takes time to discover what a section is best suited to grow and, even when once discovered locally, it takes time to spread and become generally known. What looks like the most commonplace to the long-time resident is discovered by enthusiastic outsiders and its praises sung until the place becomes famous. These observations relate to the lake shore country of northwestern Michigan, where apples, peaches and cherries grow. The proximity of this country to the Chicago market and lake transportation are also conditions that have added to its popularity and land values as well.

No culture of the soil appeals to the masses of the people like an orchard, and setting out an orchard calls for faith in the beginning and an unusual amount of "works" before the fruit is gathered. You can get more genuine enthusiasm over growing apples, peaches or oranges than over any other farm work, unless it's a poultry proposition. Very few men and women have not at one time or another planted a vineyard or an orchard, in their imagination, and dwell in bowers of fruitful trees. It appeals to the highest ideals and is a "paradise restored." In the Book of Mormon, the faithful were to plant vineyards and fruit trees, and no shrewder judge of human nature ever lived than Brigham Young, who appealed to his people through this book.

If a man is seeking a pleasant peninsula he will find it in Michigan, is a very liberal translation of Michigan's state seal. Just now if a man, or woman for that matter, is seeking to grow fruit, the Michigan lake coast belt will fill the requirements.

An 80-acre tract of land in Oceana county was purchased five years ago for \$3,750. The land has been planted to fruit trees; a most handsome orchard, solid and even, today valued at \$32,000, while in the meantime this tract of land has more than paid operating expenses in growing "in between" crops of sweet corn for canning purposes, and still more "in between" were grown crops of pumpkins for canning. An orchard is no easy proposition but, like matrimony, should be entered into with due consideration, even prayerfully.

The canning industries in the west shore counties are, in a measure, like the sugar beet factories in other sections and perhaps come into closer contact with agriculture than any other line of manufacturing. Let soil fertility decrease below the point of profitable production and an investment of approximately \$100,000 is wiped off as effectually as if done by fire, and no insurance can be secured against such a contingency except by arousing the individual farmer. But in this respect the managers of the canning concerns are active and alert. A canning establishment is no simple affair. Carloads of seed peas and beans and quantities of sweet corn must be provided. No pains are spared to secure good seed of high germination. Employees sit for weeks picking out with husking pegs imperfect and undesirable kernels from the ears of sweet corn. This corn has been previously stored in a steam heated room until the moisture is removed and after shelling it is still kept from danger of freezing. Seed peas have "heard" of the high cost of living and are as high as six or seven dollars a bushel. An almost world wide shortage of peas exists and a general advance in canned goods has resulted. Peas for canning are harvested with a mowing machine, with buncher attachment. At the canneries they are run through a machine, which takes out the peas and the vines are returned to the grower, who spreads them out to dry at home. A fair crop of peas will return one ton of dried vines equal to clover hay in feeding value. The peas are paid for by the pound, usually about 3½ cents per pound for the best grades. Pea ground is ideal for a following with wheat and clover seeding. The minimum of fertility is abstracted and the rotation is a good one.

Sweet corn is paid for at from \$8 to \$10 per ton, owing to the variety, for the ear in the husk, the husks being returned to the grower. Dairying and sweet corn growing work well together, as the corn-stalks are very valuable for milk production. Dried pea hay and sweet corn silage approximate the alfalfa hay and regular corn silage of the dairy districts elsewhere. Bush lima beans are extensively grown for canning and are shelled very much as are the peas.

Michigan northern grown corn, peas and beans are of the highest standard. Western grown sweet corn has a thick hull and is inferior in flavor to Michigan stock.

Peaches, apples, plums, and cherries are canned in season, and in addition cabbage, in the form of kraut, string beans, pumpkins, squash, table beets, etc. Contracts for crops are made annually and the business relations between the factory and farmers are usually satisfactory and mutually advantageous. The canning industry is an important factor in western Michigan on the lighter soils and many a community in northeastern Michigan would find its lands vastly increased in value if it were supplied with a cash market for their possible production. A canning factory, however, to be successful, involves a large outlay and expert management.

Land values are distinctly advanced where sugar factories and the canning industry unites the agricultural interests and the manufacturer, and good roads follow as a natural sequence. Manufacturers in other lines, like machinery and furniture, for example, are by no means as diplomatic and as sympathetic with agriculture as the lines of manufacturing alluded to in this article. When any person is considering leaving Michigan for a farm home, soil investment or factory site, he will find that the state seal has potency in its invitation and also a great assurance of possible profit. Shilawasse Co. JAS. N. McBRIDE.

HOW "ONE MAN" CAN PRODUCE
AND FEED 100 ACRES OF CORN
IN MICHIGAN.

In writing this article it may be well for the writer to explain the reason in making such an extremely big statement. In Illinois, where I lived all my early life, conditions are much different than they are in Michigan. They do their farm work much differently and always see how much one man can accomplish, save all the labor possible and make every dollar they can. Of course, most of the land there is ideal for the accomplishment of this object, and conditions are more favorable in general for a man to do a maximum amount of work on a farm. But, with those ideas firmly fixed in my mind, I was bound to carry out my plans regardless of the stumbling blocks in the way. When I moved here the people to whom I became neighbors naturally sized me up like any stranger and were anxious to find out all they could regarding the middle west. I will admit that some of the stories I told of what I had done in the prairie country and what I calculated to do here looked very queer, especially to some who had not traveled through the corn belt, and one fellow in particular who came to buy my wool, went back to town and said that Washburne was either a big liar or crazy, he did not know which. I had no earthly way, just then, to defend myself. I am now in a position to prove to the most skeptical that I can do everything I claimed to have done in Illinois right here in Michigan.

The farm I bought in Kent county being quite rough and stony I could not make very great strides there, especially in raising a great acreage of corn. But I did the best I could under the circumstances and had some seasons as high as 40 acres.

I should judge when I moved on this farm that there was at least 700 rods of rail fence on the farm. Some of the fields were fenced in six and 10-acre lots, with what they call a "devil's lane" through the center. You can imagine how I looked, never having seen a rail fence and being used to large, level fields.

To make a long story short, I cleared this farm of those fences as soon as possible and made 160 acres in about three fields. I never was partial to small fields on a farm, as it requires too much time in turning, especially in cultivating corn. I would rather put up a temporary fence occasionally than to take up so much land and destroy valuable crops with useless fences. You will be surprised at how much time you save by having your corn rows 80 to 120 rods long. It costs money every time you turn your team and the less we turn the better.

When I made the assertion that I had produced 60 acres of corn in Illinois and harvested same alone, it nearly staggered some of the farmers in Kent county, and as they thought it a breach of etiquette to call me a liar to my face, they naturally made it as easy for me as possible and said, "you can't do it in Michigan." I said nothing but was looking forward

to the time to come when I could make a change and get a more suitable farm, where I might be able to carry out some of my plans. Of course, I am not afraid of work and am in the prime of life and can do two days' work in one, if necessary. I must admit that it is an extreme amount of work for one man to attempt to produce 100 acres of corn and harvest it, alone, but I am able to do this right here on my own farm in Washtenaw county.

To start with, this is ideal corn land and compares favorably with the prairie soil; productive, level, and large fields of 25 to 50 acres, where you can have rows of corn 120 rods long. (I might add that there are thousands of such farms in Michigan that can be bought for one-half to two-thirds less per acre than in Ohio or Illinois, and are equally as good). To accomplish this task one needs five good, active horses, weighing not less than 1,500 lbs. each, like I now have. I start the big gang plow (14-in. bottom), as early as possible in spring, and can turn over 100 acres in 16 days, or an average of over six acres per day. After the plowing, I can harrow 50 acres per day with my 25-ft. five-horse harrow and ride behind on a sulky. It will take about eight days to fit this ground in fine shape for planting. Next comes the check-row planter and with two active horses I can plant 25 acres per day and check it perfectly straight both ways. Four days will finish this 100 acres. I generally harrow my corn once or twice before cultivating, which would require four days more.

After I plow half of my corn ground I generally fit it and plant, providing it is warm enough. Then, when I finish planting the balance, the first piece is large enough to cultivate and when I start harvesting the first half the last planting is ready to cut.

Next comes the cultivating. I hitch three or four horses on my two-row cultivator and can go over 16 acres per day nicely, and in cultivating four times, which is sufficient, it requires about 27 days.

Next comes the harvesting. I then hitch three horses to my corn harvester and can down eight acres per day and at the end of 12 days this 100 acres of corn is all tied up in first-class shape. I generally cut down about 30 or 40 acres and then shock it up. When it lays on the ground for a few days and cures out it handles much easier. I carry it in extra large windrows with the machine and this saves much labor. I can shock 14 acres per day or the 100 acres in about eight days. This may look rather big to some to shock this amount per day but when the corn is not too green when it is cut and is allowed to cure out on the ground a few days you can shock it up as fast as you can wheat from these big windrows. I generally put 60 to 75 bundles in a shock, bracing them well together and never tie them.

Now I have the 100 acres in the shock in how many days? Plowing, 16 days, harrowing 12, planting four, cultivating 27, cutting 12 and shocking eight, or 79 days in all to produce 100 acres of corn and put it in the shock.

I will add that I can cover 50 acres of this ground with manure with the help of a good man to pitch the same. This can be done before plowing is started.

Now as this 100 acres of corn is harvested and standing in good, big, substantial shocks, that a cyclone could hardly move, and where it will keep much better than if in the barn or stack, my troubles are over. When the proper time comes I go to the stock markets and buy 75 or 100 head of well-bred feeding steers, place behind them 50 to 75 good, thrifty shoats, and haul this corn right from the field as I feed it, which would require about two hours of my time each day. By the first of April I would have several car loads of fine fat cattle and a car of hogs for my 79 days' work in producing this corn, and this stock ordinarily would net me a profit above its first cost of \$3,000 and over, and the fertilizer all left on the farm, which is equivalent to \$500 more.

This is the result of the efforts of one man right here in the state of Michigan. Now I am looking for the man who will challenge me to do this and who says we can not produce large yields of fine corn or any other crops equally as cheap as on any farm in the middle west.

Washtenaw Co. B. F. WASHBURN.

Has the seed corn been fire dried and stored in a suitable place for winter? If not it should be done without further delay.

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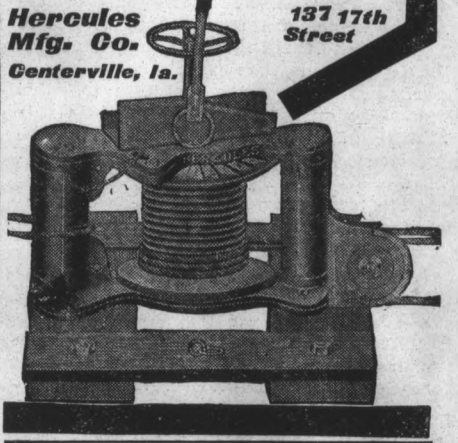
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LIVE STOCK

NATIONAL WOOL GROWERS' CONVENTION.

The forty-eighth annual convention of the National Wool Growers' Association was held at the Auditorium, Omaha, Nebraska, on December 14-15-16, with a very good attendance of the leading flockmasters and delegates, in spite of the adverse conditions which sheepmen generally have been forced to meet during the last two years. The most important subject before the convention was naturally that of the tariff, and that "iniquitous" schedule K.

The opening day was signalized by the masterful address of President Gooding, of Idaho, the most important parts of which are summarized in the following extracts:

"This convention should go on record for an honest revision of schedule K, both for the wool growers and the manufacturers of wool. The honest difference in the cost of production between this country and foreign countries is all the tariff we should ask.

"We should make our fight for revision based on the report of the tariff board. That report may be a disappointment to some of our wool growers; it may not show as large a difference in the cost of production as some of us believe exists, but if it comes anywhere near the line of reasonableness we should accept it and make a fight for a final settlement of the question. The continued agitation of schedule K has done much to paralyze the industry and if we can have anything like a permanent settlement of the question we can adjust our business to meet it, so that in the future there will be some stability for the products of our industry.

"Let us not take it for granted that the report of the tariff board is going to settle the issue. I am sure those who have watched the tariff fights in congress must be convinced that what one political party wants the other objects to. We should go on record as favoring the settlement of all business questions that are affected by politics, through a commission.

"The cost of wool production has increased materially in the past few years. There is no longer the free range we once had and labor costs more. Free wool now would bring disaster greater even than under the Wilson bill.

"Wool can be shipped from England, Australia, or South America for between one-third and one-half the transportation charged on wool from the Rocky Mountain states to Boston.

"It costs the American sheep man more to feed his shepherd dog than the Russian pays his herder. The American flockmaster pays his men \$40 to \$50 a month and board, the Englishman pays \$14.75 a month and provides a house; the Russian pays 10 to 20 cents a day, not in cash, but in grain and vegetables; the Argentinian pays \$12.50 a month, and provides mutton, salt, tea, and rice."

Showing some cloths and clothes, he said that for a \$50 suit of clothes the wool grower received \$1.96, while the manufacturer received only \$7 for the 3½ yards of cloth in the suit; a piece of blue serge which cost \$1.20 at the retailer's cost the latter 76 cents, and in the two-piece suit it would sell for \$23 to \$30. He showed a pair of wool socks which retail at 45 cents, of which the grower got six cents; an infant's undersuit retailing at 90 cents brought the wool grower nine cents.

"Somebody is committing robbery, and it is not the wool grower nor the manufacturer. The big mills contract for practically their entire output in advance. The jobber makes more on a yard of woolen cloth than the grower, commission man, and manufacturer combined. The people of the country have been deceived too long as to who is getting the big share of the high price they pay for clothes. It is time for us to speak out and let them know."

Paying his respects to Mr. Pinchot, he said:

"Tyranny is a mild word to apply to Mr. Pinchot's outrageous policy toward the flockmasters of the west. If Mr. Pinchot had been correct that the grazing of sheep in the forest reserves was a detriment to the forests there might have been some excuse for his actions, but years before Mr. Pinchot thought of conservation it had been demonstrated in the west that the grazing of sheep in the forests was their only salvation.

"The great forest fire in Idaho two years ago in which more than 200 lives were lost and millions of dollars worth of the best white pine in America destroyed, gave the forest reserve officials their first great lesson in forest fires. It was then they discovered the value of sheep in the forest reserve, for not many miles from the great forest fire, over on the Clear Water where flocks of sheep were grazing in the forest, not a tree was lost."

A. J. Knollin gave an address on the sheep industry in the east, in which he showed that the investment of the farmers in the sheep business was over 194 million dollars, and the marketing of their sheep products annually amounts to 75 millions, while there is 145 millions invested in woolen mills.

The notable address of the second day was that of Joseph E. Wing, the investigator sent by the tariff board to Argentina and other sections of South America, and who told some of his findings as to conditions there. He said that it was not so much the low cost of labor that makes Argentine such strong competition for the United States in wool, as it is the fact that the government helps the wool grower. The government will sell a would-be flockmaster something over 6,000 acres of land for something over \$4,000, and in addition will lease him 50,000 acres of land adjoining at a nominal rental for ten years. Having control of the land, the wool grower fences it and is able to get along with less labor than the American sheepman. Also there are no wild animals to prey on the sheep nor blizzards to destroy them. The control of the land gives stability to the business and encourages the grower to breed up high-class flocks.

In this connection, he digressed to say: "Our government, and I say it with shame, has not played fair with the sheepmen, nor the cattlemen either, for that matter. The time has now come to put a stop to homesteading except upon land capable of irrigation. I don't care who hears me say this, or how wide publicity it gets. The greatest crime of our country today is the homesteading of land where it sometimes rains. The great tracts of semi-arid land, fit only for grazing, should be sold to the stockmen or leased to them at a reasonable figure. Or let them be homesteaded, but give the homesteader enough land to live on by using it for grazing purposes. If not that, sell or lease it to him.

While I am on the subject there is another matter I want to speak of. The United States is the only country where sheep are taxed. In other sheep raising countries the sheep are taxed when they are sold, but not so long as they remain alive."

Other talks during the day were made by A. W. Potter, associate forester, on "The Relation of the Forest to the Flockmaster," and by Prof. W. C. Coffey, on "Market Grades and Classes of Sheep."

The last day, addresses on the tariff were made by F. J. Hagenbarth, of Idaho, and F. A. Ellenwood, of California, while Robert Taylor, of Nebraska, talked on "Sheep Breeding and Feeding," and V. O. Johnson, of Idaho, told of the fight on the part of the Association for lower freight rates on wool.

This was the most important day in the way of business, which included the adoption of resolutions, the election of the old officers for another year, the selection of Cheyenne for the place of the next convention, and the raising of a fund of \$27,000 for the use of the officers of the association in their work.

The more important resolutions were those on the tariff, which recommend a revision in accord with the findings of the tariff board, and the imposition of a specific duty on a scoured pound basis; the demanding of the right of stockmen to use the forest reserves for grazing as a lawful part of the forest system, the reduction of grazing rates on sheep in national forests; the establishment of a commission which shall classify unoccupied public lands, and frame a bill for congressional action, which shall make permanent disposition of such lands; the establishment of wool departments in agricultural colleges; a national appropriation for killing predatory wild animals is asked; the demanding of an investigation by the secretary of commerce and labor into the distribution of cost of both wool and mutton from the time the meat and wool leaves the hands of the producer until it reaches the consumer, and a submission of such report to congress.

The officers of the association are: Frank R. Gooding, Idaho, president; George Austin, Salt Lake City, western vice-

president; A. J. Knollin, Chicago, eastern vice-president; S. W. McClure, Gooding, Idaho, secretary; Frank D. Miracle, Helena, Mont., treasurer.

MIDWINTER SHEEP SHOW.

The Midwinter Sheep Show held in connection with the National Wool Growers' Convention at Omaha, December 13 to 16, saw nearly 40 exhibitors present, with over 600 head of the best sheep in America for the inspection of the sheepmen. Most of these sheep came on from the International at Chicago, where many of them had won ribbons the previous week. However, some of the ratings at that show were upset here.

Aside from the well known breeds which came from every part of the country, including Cotwolds and Lincolns from Oregon and American Merinos from the world famous flock of E. N. Bissell, of Vermont, there were some unusual exhibits. Probably the one attracting the most attention was that of the Karakule sheep sent from southwestern Texas, which are the only specimens of the breed on this continent. They were secured after much effort, expense, and the intervention of high government authorities, from their native country high up in the Himalaya mountains of Tibet. They grow a peculiar wool which is more like fur, and from it is made the famous Afghan shawls and Bokhara rugs, while the hides of the new-born lambs furnish the costly Persina lambs' wool. These sheep also have a large, fat tail, similar to the Persian Fat Tails, which is said to furnish fine meat.

Another exhibit attracting much attention was that of two llamas shown by an Omaha party who imported them from the high mountains of Chili. An enterprising Canadian importer showed several head of Dartmoor sheep which he had just brought from England. They are unknown here, and look something like a dark-faced Cotswold.

Among the leading prizewinners in the Rambouillet show was the flock of A. A. Wood & Son, of Michigan.

FEEDERS' PROBLEMS.

Rye for Breeding Ewes.

I would like to learn through The Farmer if there are apt to be any bad results in feeding rye to breeding ewes. Antrim Co. J. J. S.

It is not a safe practice to feed rye to pregnant breeding ewes, as rye is very often ergotized, and the ergot is very liable to cause the ewes to abort. Ergot is a fungous disease which attacks the kernels of rye when growing, forming a large, firm, dark colored mass of spores in place of the rye kernel which not only has the effect above noted when consumed by pregnant animals, but is also poisonous when fed in sufficient quantities. For this reason rye should not be fed to pregnant animals, but it would not be an economical grain for breeding ewes, even if it were not a dangerous feed. Corn and oats, with pea-size oil cake added to supply needed protein, will be both cheaper and more satisfactory as a grain ration for the sheep.

Dried Beet Pulp for Pigs.

Does dried beet pulp make good feed for growing pigs, and how do you feed it? Eaton Co. C. A. H.

Dried beet pulp is too bulky to be used as a feed for growing pigs, unless in very limited quantities, and then good, bright clover or alfalfa hay would make a better roughage for them to pick over. Dried beet pulp is, however, a valuable ingredient in the ration for brood sows during the period of pregnancy, when it is desired to have a bulky ration with which the sow's appetite can be satisfied without being too fattening.

STATE LIVE STOCK MEETING.

The twenty-first annual meeting of the Michigan Improved Live Stock Breeders' and Feeders' Association will be held at the Michigan Agricultural College, East Lansing, Mich., January 16-17-18, 1912. This Association unites all the separate breed associations of horses, cattle, sheep and swine. It has steadily grown in numbers, scope and influence, and is at present the greatest state live stock event of the year.

Besides the best talent that Michigan can afford, two men of national reputation will be present. Prof. W. J. Fraser, of the University of Illinois, who will speak on "Some Phases of Dairying," and Dean J. H. Skinner, of Purdue University, who will speak on "The Farmer and the Cattle Feeder."

If you wish to increase the value of Michigan farms you must increase the ability of the Michigan farmer. Mark these dates on your calendar and do not fail to be present and share in the inspiration of this great event.



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STABLE VENTILATION.

Many of the ills of live stock are due to poor stable ventilation. Many a failure to secure a profit from the live stock kept upon the farm is due to the neglect of this important factor of success. While this is true of all live stock, it is particularly true with dairy cattle and sheep, since from the nature of the methods followed in stabling these classes of live stock there is ordinarily a greater need for adequate ventilation than with feeding cattle or even horses, since these classes of live stock are ordinarily stabled where more air space per animal is available than is the case with dairy cattle or sheep, except where fattening cattle are stall fed, a practice which is not as common in Michigan as in former years.

Farmers who make a specialty of dairying have more generally had their attention called in a forceful manner to the need of good ventilation in the stables than have the owners of other classes of stock, and while there is much to be desired in the way of better ventilation in the dairy stables on Michigan farms, the smaller dairymen have very good object lessons in the matter of ventilation in the large, new dairy plants which have been constructed or rebuilt in recent years.

But of all classes of farm stock, there is perhaps greater need of improvement in ventilation in the barns where sheep are housed for the reason that they are generally crowded together more thickly

lower the temperature of the stable too much.

The best manner in which to secure a circulation of air is by the means of windows hinged at the bottom, which may be tipped back into the stable at any desired angle, thus preventing the wind from blowing directly into the stable and directing the current of air upward in a manner which will insure its diffusion throughout the stable.

The best manner in which to secure a desirable degree of ventilation in an old stable is an individual problem in each case and no set rule can be established which will insure the best results, provided it is not thought best to install the King system. One point, however, should be given attention, and that is to place a slide, preferably of canvas, at the bottom of the hay chute so that better control can be maintained over the outflow of air from the stable. This is important in very cold weather when high winds prevail, and having at hand the means of closing this aperture into the upper part of the barn, together with the use of the windows or ventilators in the mow, a more equable temperature can be secured in the stable in cold weather and a better circulation of air maintained in warm, muggy weather, when the atmosphere is heavy and damp.

The importance of good stable ventilation should be emphasized in all cases where sheep are housed in a basement stable, especially in locations where the stable is inclined to be damp, as is the case in many localities, and in exceed-

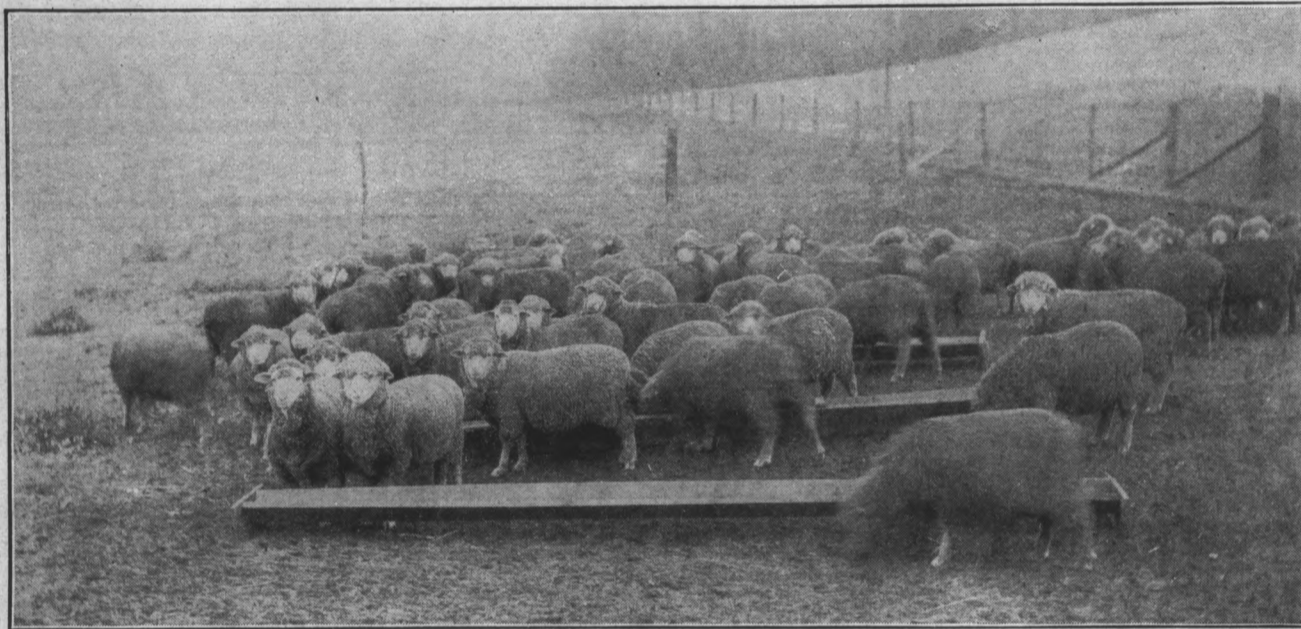
to place on the farm, or even from one farm to another, is a material advantage. For the renter who does not find sufficient shelter on his farm for his drove of hogs, the portable house is particularly advantageous, since it can be readily moved. He can well afford to construct portable houses at his own expense, if his landlord will not provide them, since he can retain them as personal property when he moves to another place.

These portable houses need not cost much. Any farmer who can handle a hammer and saw with any degree of skill can construct them during spare time, and thus save the large wages demanded by professional carpenters. Odd lumber that may be lying around going to waste can be worked into these houses.

Portable houses should be built to accommodate about five mature animals and from ten to fifteen shoats. This method keeps them much more thrifty than when they are allowed to congregate in larger numbers.

Two weeks before the sows are due to farrow, however, they should be placed in individual farrowing pens, instead of keeping five or six in one house. Pens 6x6 feet will do for the young sows, while 6x8 feet is about right for the old sows. The portable A-shaped house is a very serviceable type of house for the brood sows. It can be moved to any part of the hog lot or pasture whenever desired, and it will always provide warmth and comfort for its occupant and her litter.

In addition to their other advantages the



Flock of Useful American Delaine Merino Ewes, on the Farm of George Sexton, of Kent County.

than other classes of stock, and besides, they carry a heavy coat of wool which makes the ill effects of poor ventilation more noticeable and general than is the case with other classes of live stock maintained upon the farm. Where sheep are confined in a warm stable without adequate ventilation, the moisture from their breath condenses and this moisture, together with that resulting from perspiration, combines to saturate their wool and makes them more liable to take cold when turned into the yards to feed, or to get debilitated and "off feed," when confined closely in the stable as in the case of feeding lambs.

Undoubtedly the King system of ventilation, or some modification of it, is better than ventilation secured by other means, but where this is not installed fairly good results can be secured in other ways. For the breeding flock, a single open door on the protected side of the stable will give very good results. In the writer's barn the outside door of the sheep stable towards the east is never entirely closed, except when the wind blows from that direction, in which case adequate ventilation is given from some other direction. A good-sized door, such as should be provided in every stable, opening into the sheep yard, will admit plenty of fresh air and will not cause a draft.

A desirable circulation of air can be secured as the temperature may indicate by opening another door or window on an opposite side of the stable just sufficiently to permit a free circulation of air without causing a noticeable draft. Sheep, where kept dry, do not need high stable temperature until the lambing season begins, when the sheep can either be sheared and housed more closely or given plenty of air on bright days and only a moderate circulation at night, such as will not

ingly wet falls, such as prevailed this year.

The writer recently heard of a case in which a flock of valuable sheep were housed in such a stable with the result that they contracted colds and some died, while the condition of the entire flock was seriously impaired. A veterinarian was called who had good "horse sense," and advised the owner to bed the stable thoroughly with sawdust or plenty of straw and provide better ventilation for the flock, which treatment, together with a simple remedy prescribed, obviated the trouble which had threatened serious loss.

All cannot have new barns with up-to-date systems of ventilation, but there is no excuse for anyone denying their live stock plenty of light and fresh air. Window glass is comparatively cheap and fresh air costs nothing. But plenty of fresh air and plenty of sunlight are essentials to the comfort and well being of live stock during the period of winter confinement, and every farmer can well afford to give this matter his serious attention at this season of the year. Indeed, he cannot afford to do otherwise if he would make this department of his farm a source of maximum profit and satisfaction.

ADVANTAGES OF PORTABLE HOG HOUSES.

Because of certain advantages which portable hog houses possess over other types of hog houses, the portable house is rapidly coming into favor among swine raisers generally. The portable house possesses a number of advantages. Some of them are: It can be easily moved and located wherever desired; it is more sanitary; it is easily and economically constructed.

The possibility of moving it from place

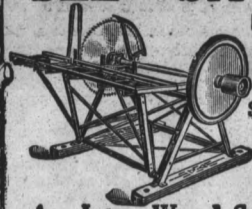
portable hog houses largely solve the problem of keeping the hogs in sanitary quarters. WM. PURDUE.

During the International show numerous sales of Clydesdale and Shire horses were made, one firm selling ten head to a Utah breeder and nine head for shipment to Oregon. One large importer for the 1910 International won \$1,800 in prizes in that year and sold horses aggregating in value \$45,000, and made a fine showing this year.

C. H. Rider, one of Iowa's most successful sheep feeders, has come out well ahead in fattening sheep recently, but swine plague, which has been wiping out entire herds of hogs in his section of late, ruined his hog crop, only four out of his herd of 97 pigs failing to succumb to the epidemic. He reports very few cattle feedings in that region. "Hog cholera, which, in connection with the fear of it, has practically wiped out the pig crop in my section, is also affecting cattle and sheep feeding," said Mr. Rider. "Because our farmers have not got the hogs to follow cattle on feed, cattle feeding this winter will be on a reduced scale with us. This has been one of the factors in current heavy liquidation of half-fat steers. But while the loss of our young hogs is adding to the impulse to liquidate cattle, it should, and I believe will, have the opposite effect on such of our farmers and feeders who have a flock of sheep on hand, in that the grain and other feed stuff that would have been consumed in beef and pork making will be available for conversion into mutton."

Not long ago an Iowa stockman marketed at Chicago 51 beef steers that averaged 1,413 lbs. at \$8.50 per 100 lbs., the price being highly satisfactory to the owner. The cattle were purchased as feeders in August last year for \$3.50 per 100 lbs., their average weight at that time having been 700 lbs. They were left on grass up to the appearance of winter and subsequently roughed through on corn fodder, with the corn on the stalks. Up to last August they had been on full feed since last April, their ration consisting of ground ear corn on grass. Thereafter they were placed in a dry lot and given ground ear corn and shelled corn mixed, with alfalfa hay for roughness, and later clover and some oats substituted for alfalfa.

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VETERINARY

Advice through this department is free to our subscribers. Each communication will be published. Initials only will be published. Many queries are answered that apply to case in full; also name and address of should state history and symptoms of 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.

Open Joint—Poll-evil.—For the past two months one of my horses has had a sore on hock joint which I have been unable to heal. Have paid Vets. \$45 in fees for treating him without good results. They have also treated a case of poll-evil for me, succeeding in reducing the bump, but the discharge continues. W. H. B., Capac, Mich.—Your Vets. may have treated both cases with drugs. Now if you will insist on them using a polyvalent bacterial vaccine, or bacterin for the curative treatment of poll-evil, open joint etc., they will obtain satisfactory results. This new treatment has given me satisfactory results in the treatment of similar cases.

Enlarged Fetlock Joint—Knuckling.—Colt cut forelock joint open by getting tangled in barb wire, making a wound which finally healed, but left a bump which I would like to have removed. I also have colt six months old that is cocked in ankle of both hind legs. J. E. J., Walkerville, Mich.—Apply iodine ointment to bump three times a week and blister fetlock lightly with cerate of cantharides three times a month and fetlock ligaments will strengthen.

Irritation of Kidneys.—Have a six-year-old mare that is tender in loins; she does not pass enough urine and I imagine she suffers some pain when in the act of urinating. Are sugar beets good food for horses? I forgot to say this mare is costive. W. M., Charlevoix, Mich.—Your mare suffers from irritation of kidneys and bladder caused by acid urine. Give 2 drs. uritropin at a dose in feed three times a day for four days, then give 1 dr. doses twice daily for a week. Small quantities of sugar beets fed to horses do them good.

Abscess—Windbroken.—Horse has enlargement of face, bump is high up and only on one side. How shall I treat the case? Old horse is badly windbroken and I would like to know if there is any help for him. L. A., Kings Mills, Mich.—Apply one part iodine and eight parts lard to bump once a day. If bump softens open it. Old chronic cases of heaves are incurable; however, you should feed no clover or musty, badly cured fodder of any kind, also remember the stomach and bowels should never be overloaded, for an empty, wind-broken horse always breathes easier than if he is full of food.

Ringworm.—I have a bull calf that I am raising for service, that is troubled with ringworm. We also have a horse that stocks when allowed to stand in the barn over night, but he shows symptoms of no sickness. E. E. S., Carsonville, Mich.—Apply one part iodine and eight parts lard to sore parts three times a week. In treating such cases you must use your own good judgment how much to put on and how often.

Heifer Fails to Come in Heat.—I have a heifer that came fresh some five weeks ago; she did not clean just right, had some discharge for a week and has not come in heat. F. J. F., Temperance, Mich.—Dissolve 1 dr. permanganate of potash in one gallon of clean water and inject one quart at a time into vagina three times a week. Give her 1 dr. of ground nuxvomica at a dose in feed three times a day.

Congestion of Lungs.—One of my fat lambs took sick, was dumpy and occasionally coughed and after a time died. I opened her and found lungs much like a liver and windpipe full of mucus; what caused death? H. W., Petersburg, Mich.—Your lamb suffered from congestion of lungs, followed by pneumonia, resulting in death. If you have another case, poultice sides with antiphlogistine and give three drop doses tincture aconite to reduce fever; also give small doses of whiskey, aromatic spirits ammonia and sweet spirits of nitre every two or three months and if the lungs close or consolidate give three grains iodide of potassium at a dose every four hours until lung clears. There are many useful remedies that will help such cases; however, the treatment of lung ailments in sheep is not very satisfactory. It is needless for me to say that pneumonia is best treated by good nursing and a liberal supply of fresh air.

Feeding an Unbalanced Ration.—Would like to know the cause of our chickens' death; some of their legs swell and most of them appear to be troubled with leg weakness, but have no symptoms of cholera. None of the sick ones have good control of their legs. We feed them corn and no other grain and on account of so much wet weather the crop is real damp. H. L. D., Charlotte, Mich.—The damp weather and inferior quality of corn fed to them is producing a bad effect. You should add some lime water to their food supply and lime water is made by dissolving a handful of lime in a bucket of water, pouring off the first water, then refill and use. Water will absorb only so much lime, therefore there is no danger of making it too strong. A tablespoonful given to each chicken or allow them all to drink, one part lime water and five parts clean water, will help the whole flock. They should be fed oats and some wheat, instead of corn. They should be kept dry and clean and not allowed to roost in a draft.

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Boars old enough for service. A few bred Sows, Fall Pigs, pairs and trios not akin. I will sell you fall pigs at prices that will surprise you. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich.

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POULTRY AND BEES

ANNUAL CONVENTION OF MICHIGAN BEE-KEEPERS.

The opening session of the Michigan Bee-Keepers' association, held at Saginaw, was called to order by President E. D. Townsend, at 1 p. m., December 13. Mr. J. B. Tracy, of the Saginaw board of trade, gave us a cordial welcome and, as a substantial proof of that welcome, presented us with the free use of a magnificent room in that city's great auditorium.

Mr. Jenner E. Morse, a Saginaw member of the association, presented each one present with an association badge which gave admission at the doors without the delay which might otherwise have been experienced because of other things going on in the building.

The Secretary's Report.

Perhaps the most interesting part of Secretary Tyrrell's report was his description of how the foul brood campaign had been carried on in this state. At the convention at Grand Rapids last year Dr. Phillips gave the secretary the names of over 4,000 bee-keepers in Michigan and to these was sent all the information possible bearing upon the problem of controlling foul brood. It is believed that the bee interests of the state have benefited from this campaign. The secretary regretted that he had been unable to issue this year's booklet as early as he wished. The reports for the booklet came in more slowly than usual and he attributed this to the discouraging season and resulting shortage in the yield of honey. The secretary requested that an auditing committee examine the books, and Messrs E. M. Hunt and Leon C. Wheeler were appointed to do this work.

President Townsend, in his address, recommended that this association merge with the national association and become an auxiliary of that body; also that all officials chosen by this auxiliary be elected as honorary officers without compensation; also that the association form branch auxiliaries in three or four parts of the state (thus giving more bee-keepers a chance to attend the meetings to be held). He spoke regretfully of the loss sustained by the association through the death of those two most estimable and beloved members, W. Z. Hutchinson, of Flint, and Hon. Geo. E. Hilton, of Fremont.

Following this address the members indulged in a very lengthy discussion as to whether the association should accept the constitution of the National Bee-Keepers' Association and merge itself with that body as an auxiliary. Secretary Tyrrell, who advocated taking this move, said in brief: There is much to be looked forward to in the future of our organization. The plan used in Michigan to help members sell their honey at right prices, etc., is really more co-operative than the plans of most other states. The issuing of an annual booklet giving the names of bee-keepers having honey to sell, and furnishing the names to dealers, has been very productive of good results, so much so that nearly all members were entirely sold out, and at good figures, very early in the fall. However, he feels that there is much room for improvement and is looking forward to the time when bee-keepers shall have a central clearing house to which honey can be shipped and there bottled and sold direct, thus eliminating much of the middleman's profit and bringing the producer and the consumer that much closer together. He stated that, as the matter now stands, the association is without a constitution, and he earnestly recommended that it adopt the constitution of the national organization, which would give us full voting powers in that body without in any way lessening our powers in our own body. The constitution provides that each branch organization shall have the privilege of sending one delegate to the national meetings, and that such delegate shall have one vote for every 50 members or fraction thereof, no branch to be composed of less than 25 members; in other words, the Michigan association, having 300 members, would be entitled to six votes on all questions.

In reply to W. J. Manley's question as the dues under this arrangement, Mr. Tyrrell said: They will remain unchanged but, instead of retaining one dollar and sending fifty cents to the National, the order will be reversed, we retaining fifty cents and sending one dollar to the National. On the other hand, the Na-

tional, of which we will then be a part, will stand a larger portion of the expenses.

At this point someone asked, do we want to build up the National Association at the expense of the State Association? To this the secretary replied, that, in his opinion, it would not be at the expense of the state organization. Harking back to the booklet, he expressed the opinion that members would receive more benefit than they now get from the booklet by sending out cards early to bee-keepers advising them as to market conditions. Buyers were out this year buying up honey at low figures before bee-keepers had had time to learn what the conditions were.

L. A. Aspinwall spoke in favor of retaining the booklet and suggested that its contents include the names of senators and representatives, thus giving bee-keepers a better chance to look them up and to write them concerning legislation affecting the bee-keeping industry.

The question of adopting the constitution was finally laid on the table until 8:30 a. m. of the following day.

Methods of bringing producers and dealers in touch with each other were then briefly discussed, Mr. Tyrrell suggesting that it be done by correspondence through the secretary's office, or by sending out lists, corrected weekly, of dealers and producers. The discussion was cut short by a motion proposing that a booklet be issued during the coming year and the motion prevailed.

Prof. Pettit, of the Agricultural College, extended an invitation to the association to hold its next annual convention at the Agricultural College, which was accepted, the date to be fixed later by the executive council. The election of officers was deferred until after the vote on the constitution had been taken.

The Evening Session.

This session opened with an address by Mr. Sanders, state foul brood inspector, who said: I was appointed inspector on May 16, and immediately started a still hunt, digging up for myself the places where foul brood existed. The foul brood inspector should not be compelled to do this, for all bee-keepers should be sufficiently interested in this proposition to write to the inspector early and let him know when there is foul brood in their neighborhood. These reports should be sent to the state dairy and food commissioner at Lansing. I visited during the season 458 apiaries and inspected a total of 8,693 colonies.

What is the cause of so much foul brood in Michigan? In my opinion the bee-keepers themselves are largely to blame. They should co-operate with the inspector and look over the bees in their own neighborhood. Where they cannot take care of it themselves they should notify the inspector, who will come and help them get rid of it. Otherwise we could not possibly get the state to furnish enough funds to anywhere near get rid of the disease. Bee-keepers are not thorough enough in their work. I found one yard which had been cleaned up and there were combs lying around that were rotten with foul brood. The bees were swarming around them and cleaning them out. We cannot clean up foul brood in that way.

How shall we check and eradicate this disease? First, by compelling every queen breeder to furnish a certificate, signed by the inspector, that he has no disease. Second, by co-operating with the inspector, making it possible for him to give his full time to the work by securing the funds necessary to do this. This speaker recommended that the association ask the legislature for at least \$4,000 and keep up the fight until the appropriation is secured. There should also be a law for the fine and imprisonment of those who refuse to clean up their apiaries when ordered to do so by the inspector.

Mr. Aspinwall, from his own experience, was inclined to question the ability of an inspector to examine over 8,000 colonies in 100 days, but several members testified to Mr. Sanders' rapid and efficient work. Mr. Rasmussen declaring that on one occasion he and Mr. Sanders inspected 38 colonies in an hour and 20 minutes.

Speaking further of his work the inspector said: McEvoy, of Canada, claims that it is not necessary to disinfect hives that have contained foul brood, but I believe it is and have ordered everybody to disinfect. I have seen several cases where the disease apparently came from the use of hives that had not been disinfected. Finding that I could not possibly get all around the state, I tried to get as far as possible with the time and

means at my disposal. The seriousness of the situation has been brought to the attention of a great many bee-keepers and I think they will try harder to keep their apiaries free from the disease in the future. As to the rapid work I did, one can do very rapid work when he becomes accustomed to it, as he will learn to detect the disease almost at the first glance. (Concluded next week).

POULTRY ON FARMS IN THE UNITED STATES.

The census figures relative to poultry on the farms of the United States have just become available. Statistics for Michigan alone were published in this department earlier in the year. They form a part of the thirteenth decennial census which was taken in April, 1910, and are of interest in revealing the magnitude of the industry and its growth during the past ten years.

The total number of farms reporting poultry in 1910 was 5,585,032, or 87.8 per cent of all farms in continental United States. Only 6,507 of the farms reporting poultry failed to report chickens. Turkeys were reported from 871,123 farms, or 13.7 per cent; ducks from 503,704, or 7.9 per cent; geese from 662,324, or 10.4 per cent; guinea fowls from 339,538, or 5.3 per cent; and pigeons from 109,407, or 1.7 per cent.

Changes in Number and Value.

The number of fowls reported in 1910 was 295,880,000, and their total value was \$154,663,000, or an average value of 52 cents. Nearly 95 per cent of all the fowls were chickens; they numbered 280,345,000, and their value was \$140,206,000, the average value being 50 cents. Turkeys numbered 3,689,000 and were valued at \$6,606,000, the average value being \$1.79. The ducks reported numbered 2,907,000, and were valued at \$1,567,000, with an average value of 54 cents. Of geese the total number was 4,432,000, and the value \$3,195,000, or an average value of 72 cents. In 1910 there were also reported 1,765,000 guinea fowls, valued at \$613,000; 2,731,000 pigeons, valued at \$762,000; and 6,458 peafowls, valued at \$18,300.

The total number of fowls in the United States increased from 250,624,000 in 1900 to 295,880,000 in 1910, a gain of over 45,000,000, or 18.1 per cent. The figures for the two censuses are comparable, despite the change in date of enumeration, fowls under three months old being excluded in both cases. The number of turkeys, ducks, and geese, however, decreased very materially in nearly every section of the country. The aggregate increase in fowls was, therefore, due to the increase in the number of chickens, which rose from 233,566,000 to 280,345,000, or 20 per cent. The percentage of decrease for turkeys was 44.1, for ducks 39.3, and for geese 21.9.

The percentage of increase in value of poultry was over four times as great as that in number, amounting to 80.2 per cent. The average value per fowl thus rose from 34 cents in 1900 to 52 cents in 1910.

The poultry industry is distributed throughout the United States. In the several geographic divisions, however, the number of fowls per 100 acres of improved farm land varies considerably. The New England division shows the greatest relative number, which is about 98 fowls per 100 acres of improved farm land, while the lowest relative number (36) is in the mountain division. The Middle Atlantic and East North Central divisions also show large relative numbers, amounting, respectively, to 89 and 81 fowls per 100 acres of improved land.

Every geographic division reports an increase during the decade in number of fowls on farms. The greatest actual additions appeared in the East North Central and West North Central divisions.

The number of chickens increased during the decade in every one of the geographic divisions, but the number of turkeys, ducks, and geese decreased in every division, except that there were increases of turkeys and geese in the Mountain division and a slight increase in ducks in the Middle Atlantic division.

Ten Leading States.

Iowa has the largest total value of poultry, amounting to \$12,270,000, and Missouri ranks second, with \$11,871,000. The eight states next in order are Illinois, \$11,697,000; Ohio, \$9,533,000; New York, \$7,879,000; Indiana, \$7,762,000; Pennsylvania, \$7,764,000; Kansas, \$7,377,000; Michigan, \$5,611,000; and Texas, \$4,807,000. In these 10 states together the value of poultry is \$86,481,000, or 55.9 per cent of the total value of poultry in continental United States.

Let Me Send You Proof



There is nothing like being sure. I will prove that my famous incubator—price only \$7.55, freight prepaid, sold on 1, 2, or 3 months home test—will out-hatch any machine made, no matter what kind or price. Don't you want to be sure? Why pay more than my price for any machine defeated by my

World's Champion 140-Egg Belle City Incubator

which is easiest to operate, surest of results. Let me send you proof in my big portfolio, "Hatching Facts"—it carries all the evidence—tells you how to start in the poultry business on a profit-making basis at a small outfit. Has double walls and door—and dead air space all over, copper tank, hot water heater, self-regulator, "Ty-cos" thermometer, egg-tester, safety lamp, nursery, high legs. My 140-chick brooder double wall, hot water, top heat \$4.85 Guaranteed best brooder made. \$11.50 gets complete outfit when ordered together, freight prepaid. My portfolio proves all. If in a hurry order right from this ad on Home Test Plan—thousands do. I guarantee satisfaction or return money. JIM ROHAN, President Belle City Incubator Company Box 14 Racine, Wis.

140-Chick Brooder \$4.85

140-Egg Incubator \$11.50

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THE DAIRY

CONDUCTED BY COLON C. LILLIE.

WHY DAIRYING IS A PAYING BUSINESS.

Of all commercial businesses none should inspire those who are dependent thereon, more than dairying. There is one reason why this should be true, and that is, that the dairy plant not only does not depreciate but actually becomes more valuable when handled properly. Each year the dairyman should and can say that his income from the business is larger than the receipts from dairy products less interest on investment and cost of feed. His land upon which his business depends is naturally better fitted by virtue of returning to it the large amount of refuse from the dairy stables, to produce larger crops and consequently a larger income. Of course, we cannot believe that a person can go on indefinitely improving his soil, yet we are not informed as to the limit of production of a single acre; however, we have definite knowledge of where the producing power of dairy farms was doubled and even tripled. And this means that the net profits were increased out of proportion to the change in productiveness since it demands but little more expense to mature a crop on a rich soil than on a poor one. For example, the plowing, harrowing and cultivating of a field that produces 100 bushels of corn per acre is the same as is demanded by a field that returns 60 bushels. The harvesting expense will be slightly increased, due to the larger crop to handle but for the 40 bushels difference there would be only the additional harvesting expense to be charged against it. It would be like going to a neighbor's field and harvesting a corn crop for the corn itself, he donating the cultural expense, and the interest and tax upon the land. It is this increased and increasing capacity of the dairyman's plant that makes his business successful and him happy and contented with his lot.

A. H.

CORN FODDER AND WHEAT STRAW FOR ROUGHAGE.

Will you please give me your advice as to what kind of feed to buy to make the cheapest balanced ration for my cows, with feed at the following prices: Bran, \$1.40 per cwt; oil meal, \$2.10 per cwt; beet pulp, \$1.25 per cwt; dried brewers' grain, \$1.40 per cwt; cottonseed meal at \$1.50 per cwt, and ground wheat at \$1.40 per cwt? I have shredded corn fodder and wheat straw for roughage. I have corn that I could have ground, cob and all, and 175 bushels of turnips. How much of the turnips should I feed a day to get best results? Would you advise any change in the grain ration after the turnips are gone?

F. R. P.

Corn fodder and wheat straw are not a very good roughage for dairy cows. A certain amount of corn fodder is appetizing and relished by the cows but when you come to make cows subsist upon corn fodder and upon wheat straw entirely for roughage they cannot do their best unless you feed them a pretty expensive grain ration. Wheat straw is quite indigestible and there is a lot of waste to corn fodder as well, but of course where one hasn't anything better for roughage, he can, if he will go to the expense of providing a rich grain ration, get dairy cows to do fairly well.

Lacking succulent food in the ration, I would by all means advise you to feed dried beet pulp and to moisten it three or four hours before you feed so that it will have a chance to absorb the moisture and assume its original form to give succulency. Then, as a grain ration, I would feed corn and cob meal, cottonseed meal and oil meal, in the proportion of 300 lbs. of corn and cob meal, 100 lbs. of oil meal, and 100 lbs. of cottonseed meal mixed together and fed rather liberally owing to the fact that no hay of any kind is contained in the roughage. The turnips will make a fairly good succulent food and I would feed them sparingly and make them go as far as I could. I would suggest that you feed turnips once a day and moistened beet pulp once a day and I would only feed a few turnips to each cow to make them last as long as possible. If you could string them out so that they would last nearly all winter I believe that you would get better results from them than you would if you fed a half-bushel to a cow per day; because turnips are appetizing and their succulency assists the cow in digesting some of the corn fodder and wheat straw. Of course, like other root crops they are not

high in food value and unless we have large quantities of them I would feed them sparingly to get the full benefit of the succulency rather than to feed them in a heavy ration with the idea of having this food supply a part of the food nutrients. I would not change the grain ration whether I fed turnips or not, because feeding them sparingly in this way they would not have very much effect upon the ration.

DRIED BEET PULP AND OIL MEAL.

I am obliged to purchase grain for my cattle this year. I wish to know the most economical to buy. How about dried beet pulp and how will it do to feed with oil process oil meal, as I feed that with bran and meal? We have no silo. Allegan Co. F. B. W. Newaygo Co. H. W. B.

As long as you have no ensilage or other succulent feed I don't believe you could get anything better than beet pulp for a portion of the ration, and since you have no succulency I should take pains to moisten this beet pulp several hours before each feed, let it absorb just what moisture it will, and then feed it in that condition. If fed in this way it is very palatable and in a marked degree takes the place of a succulent food in the ration. I don't think that you can get anything better than old process oil meal to feed in connection with dried beet pulp and if I purchased the beet pulp I would not use bran at all. Bran is quite high in price and so far as the digestible protein is concerned a ton of old process oil meal is worth more than two tons of bran and if you have the beet pulp to feed as a part of the ration you can make a good balanced ration by feeding beet pulp and oil meal in connection with your roughage, but in order to figure out a balanced ration with anything like accuracy one must know the roughage that is being fed. It will make considerable difference in the amount of oil meal necessary to feed whether you fed clover hay, timothy hay or simply cornstalks. If you have clover hay to feed as the roughage then I would figure on mixing the beet pulp and oil meal in the proportion of about three pounds of beet pulp to one pound of oil meal and feed as many pounds per day as each cow gives pounds of butter-fat in a week. But beet pulp doesn't mix readily with a food like oil meal. The oil meal is so fine and the beet pulp so coarse that they don't mix together and if you attempt to mix them dry and feed them in that way one cow will get more oil meal than another one and so I would suggest that you moisten the beet pulp and feed it alone and then immediately give the cow the feed of oil meal on the pulp. Now, since you mix the beet pulp in the proportion of three pounds of beet pulp to one pound of oil meal you could feed each cow one-third as many pounds of oil meal per day as she produced pounds of butter-fat in a week and give her two-thirds of the ration in beet pulp. In this way there will be no loss, nor inconvenience in feeding, and I am positive that you will get good results.

WEIGHT OF SILAGE IN A SILO.

I have a silo, 10x30 ft., built on a stone basement 9x12, the silo was filled within two doors of the top; there is 16 ft. of silage left, 12 ft. high and 9 ft. in diameter and 4 ft. with 10 ft. diameter. Can you give me an estimate of the number of tons of silage remaining?

It has been determined by careful experiments that on the average a cubic foot of corn silage in an ordinary silo will weigh about 40 lbs. It won't weigh quite this much at the top of the silo but at the bottom of the silo it will weigh more, and the average is put down as 40 lbs. per cubic foot. Of course, the deeper the silo is the more compact it will be in the bottom and the heavier it will be per cubic foot. While this estimate is not absolutely accurate it is the best rule we have and is approximately correct; therefore, to determine the number of tons of ensilage left in your silo simply get its cubic contents in feet and multiply the number of cubic feet of ensilage in the silo by 40, that will give you the number of pounds of ensilage the silo contains. As you have 12 feet of ensilage nine feet in diameter and four feet of ensilage 10 feet in diameter, all that is necessary to do is to find the cubical contents of each one of these separately and add them together and multiply them by the 40 lbs. in a cubic foot. Of course, to find the cubical contents of a cylinder you multiply the diameter by 3.1416, that will give you the circumference and then multiply the circumference by one-half of the radius of the circle and that will

give you the area of the base of the cylinder and multiply the area of the base by the height of the ensilage will give you the number of cubic feet of ensilage. Applying this rule to your silo it would make between 40 and 45 tons of silage that you have on hand at the present time.

IS SIX POUNDS OF GRAIN PER DAY ENOUGH?

I am continually changing cows to keep up a certain amount of milk at all times, as I always have sold milk at door to milkman, hence never know what the cows test. Cows generally kept are somewhat mixed, Jersey, Holstein and Durham weighing about 1,000 to 1,100 lbs., just an ordinary class of cows. Now I am about to market my own milk as I live within half a mile of residence portion of the town. Have commenced to weigh grain and silage and rough stuff, trying to get cows up to a little better paying average. My main question is, does 6 lbs. per day per head (as near as you can judge by my description of cows) of two parts wheat bran and one part cottonseed meal, making about a 24 per cent protein feed—does this 6 lbs. of grain ration balance 40 lbs. per day per head of corn silage (rich) and about a good heaping bushel of corn stover. I think (according to report of others), I feed more silage than some do but they must feed more rough stuff of some other kind as my cows eat every particle and would more, I believe, and seem to be very healthy. You see, my cows' coarse feed is all corn ration and I believe if my cows would consume more feed it would pay to feed more protein feed.

Oakland Co.

F. H. W.

Six pounds of grain per day is not a sufficient quantity to make some cows produce a maximum yield. Where you do not test the cows for butter-fat and do not know how much they produce in a week you can feed a grain ration in proportion to the number of pounds of milk which a cow gives in a day, but here, to get the best results, one ought to know something about how this milk tests because it goes without saying that milk that will test five per cent is richer and better than milk that tests only three per cent of butter-fat. The cow ought to have a heavier grain ration in proportion to the amount of milk which she gives when she produces a five per cent milk than when she produces a three per cent milk. A very good rule would be, and perhaps it would be accurate enough for all practical purposes, to feed a pound of grain for every three pounds of milk that a cow gives in a day if she gives four and a half to five per cent milk and a pound of grain for every four or four and a half pounds of milk which a cow gives if she gives something like three per cent milk. While you are feeding a liberal ration of corn silage, of course you know as well as I that where they get practically all of their roughage from corn silage they must have more than they would need if fed a good liberal feed of clover hay once per day, or any other hay, and I would think for cows of this size 40 pounds of corn silage with a bushel of corn fodder would be none too much, and you can afford to feed this liberal ration, which is rich in protein, if you are not feeding any legumes in the roughage.

Probably six pounds of grain per day is more than you can afford to feed some of the cows and it is not enough to feed others. It is certainly not a good rule to feed all cows the same ration because they don't earn it and they won't make good use of it. The cow that produces well is the one that should be fed the largest grain ration and she is the one that usually received the largest roughage ration because a good producer invariably eats more roughage than a poor or light producer.

Dairy interests are in an unusual position, the production of butter and eggs of late having been greatly below normal, while the demand has exceeded the supply, so far at least as prime offerings were concerned. All this has resulted in frequent advances, and now values are the highest seen for years at this season of the year. Stocks of butter and eggs in cold storage houses, in the principal holding centers of the United States were greatly reduced during the month of November, according to the report of the warehousemen's association, posted a few days ago in the Chicago butter and egg board. Total stocks in 38 houses aggregated 30,148,000 lbs. of butter and 1,310,200 cases of eggs on December 1, according to the report. These stocks showed decreases of 10,090,000 lbs. of butter and 630,000 cases of eggs last month, and made total stocks of butter 25,805,000 lbs. short of holdings a year ago, while stocks of eggs were 123,000 cases in excess of reserves in storage in 1910.

Stops a Cough Quickly —Even Whooping Cough

A Whole Pint of the Quickest, Surest Cough Remedy for 50c. Money Refunded if it Fails.

If you have an obstinate, deep-seated cough, which refuses to be cured, get a 50-cent bottle of Pinex, mix it with home-made sugar syrup and start taking it. Inside of 24 hours your cough will be gone, or very nearly so. Even whooping-cough is quickly conquered in this way.

A 50-cent bottle of Pinex, when mixed with home-made sugar syrup, gives you a pint—a family supply—of the finest cough remedy that money could buy, at a clear saving of \$2. Very easy to prepare—full directions in package.

Pinex soothes and heals the inflamed membranes with remarkable rapidity. It stimulates the appetite, is slightly laxative, and has a pleasant taste—children take it willingly. Splendid for croup, asthma, bronchitis, throat tickle, chest pains, etc., and a thoroughly successful remedy for incipient lung troubles.

Pinex is a special and highly concentrated compound of Norway White Pine extract, rich gualacal and other healing pine elements. It has often been imitated, though never successfully, for nothing else will produce the same results. Simply mix with sugar syrup or strained honey, in a pint bottle, and it is ready for use.

Anyone who tries Pinex will quickly understand why it is used in more homes in the U. S. and Canada than any other cough remedy. The genuine is guaranteed to give absolute satisfaction or money refunded. Certificate of guarantee is wrapped in each package. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., 232 Main St., Ft. Wayne, Ind.

Have You Plenty of Feed,

enough to last you until next summer? Whether you have or not it will pay you to feed

Dried Beet Pulp.

Your stock will do better if beet pulp forms a part of their ration. This is not "hot air," try it, and prove it for yourself. You cannot lose by doing so but you will undoubtedly profit thereby.

It takes the place of bran, gives better results, and is cheaper. Especially good for dairy cows. Dried Beet Pulp is used by the best dairymen. Don't be afraid to feed it because your grandfather didn't use it, he probably never heard of it.

Ask your dealer. If he does not keep it write to T. F. MARSTON, Sales Agent for the Sugar Co. Address Box D, Bay City, Mich.



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Will be saved this winter to the 15,000 users of Indiana Silos. Are you getting your share? There is another winter coming. Our best salesmen are the 15,000 Indiana Silos now in use.

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Written by over two hundred of the best breeders, feeders and farmers in the world. "Tells how they greatly increased their profits." **Get this valuable book and our new catalog now—FREE.** Licensed under Harder Patent No. 657,132.

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Good Agents wanted everywhere.

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Double grinding rings with saw tooth grooves grind twice as much as any other feed mill of same size with one-third less fuel.

Force feed; never chokes. For Gasoline or Steam Engine. Grinds corn on cobs or in shucks, shell corn, wheat, oats, Kaffir corn, alfalfa, clover, rye, wheat, barley, cotton seed. Coarse or fine. Easy to operate. Fully guaranteed. Catalog FREE. Write today.

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FOR SALE—Rebuilt Machinery—22 H. Pitts engine; 20 H. Reeves traction; 20 H. Pitts; 18 H. Russell; 16 H. P. Huron; 18 H. Huber; 15 H. Pitts; 17 H. Frick; 16 H. Pitts; 16 H. Advance; 16 H. Gaar-Scott; 15 H. Aultman-Taylor; 15 H. Rumely; 15 H. J. I. Case; 13 H. Rumely; 12 H. Huber; 25 H. Marvin; Stationary gasoline engine; 20 H. Fairbanks-Morse; 6 H. Moore; 6 H. International; 30" Massillon Separator; 25" Frick; 30" Pitts; 32" Frick; 32" Advance, and many others. Write us for our complete list of rebuilt machinery. Do it today.

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Different from all others. 4 or 2 horses. Grind Corn with shucks and all small grains. (Also make 10 sizes of belt mills) FREE—Booklet on "Feeds and Measures"

B. N. P. Bowser Co., South Bend, Ind.

WANTED FOR U. S. ARMY—Able-bodied, unmarried men, between the ages of 18 and 35, citizens of United States, of good character and temperate habits, who can speak, read and write the English language. For information apply to Recruiting Officer, 212 Griswold St., Detroit, Mich.; Headquarters Block, Saginaw, Mich.; Corner 1st & Saginaw Sts., Flint, Mich.; 110 East Main St., Jackson, Mich.

PRODUCING CLEAN MILK.

In producing clean milk it is not more knowledge that we need so much as it is the desire to do decently the things we already know. It is easy for the scientist to tell us how to keep harmful bacteria out of milk, but in our every day work we are doing pretty well if we succeed in keeping out something that is called by a different name.

Healthy cows secrete healthy milk. Bacteria get into the milk after it is drawn from the cow or in the process of milking. The cow is not the guilty party. Milk does not come from the cow entirely free from bacteria, because it is impossible to keep the teats of the cow sterile; however, we can keep them clean and reduce contamination from this source. The ducts of the teats and the body temperature of the cow afford ideal conditions for the bacteria to multiply and, the best we can do, the lower ducts of the teats will contain a considerable number of bacteria. By using the first few jets of milk to wash out the ducts, the milk that goes into the pail will be practically free from bacteria. If proper care is taken at this stage of production, the few bacteria which get into the milk from this source are of but little consequence.

On the other hand, cows that have local diseases of the udder may give milk which at times is contaminated with the bacteria which cause this disease. There is many a proof that such germs can live and pass into the body of the user and cause the same disease as the cow was afflicted with. This shows us that tuberculosis of the udder may readily be transmitted to human beings, or young stock. Milk from unhealthy cows should never be used by human beings, or to feed young stock on the farm. No matter how well all other requirements are met, if the cows producing the milk are not all in good health, we fail.

After proper precautions in milking we are confronted by other troubles. First, it is exposed to dust and dirt in the stable, which consists largely of dried manure and urine from the floor. The cow is not a particularly clean animal, and the same materials that are found on the floor, will be found, in a greater or less degree, dried upon her flanks, belly and tail. If the long hair on the cow's tail, flanks and udder are not clipped and brushed and the udder washed the movements of the cow and milker set in motion a rain of this bacteria-laden dust and the swishing of the cow's tail only adds to the trouble.

The dried excrement dust is rich in organic matter, and loaded with bacteria from the intestines and urinary passages of the cow, which thrive and multiply on the food thus given them. By adhering to this solid dirt they get into milk and find ideal places to grow and multiply. When we drink such milk we take in many of the former inhabitants of the cow's stomach and intestines. The thought of this becomes more repulsive when we remember that the cow may be throwing off tubercle bacilli before the disease appears elsewhere. There is greater danger of milk being contaminated from this source than before it leaves the udder. Such bacteria cause terrible series of disease when taken into the human stomach and intestines. Dried excrement from the cow's body will cause this kind of contamination and undoubtedly plays even a greater part when the cows are kept in a filthy, dust-laden stable so common on many dairy farms. Hay and straw dust will give rise to no very serious diseases, but it will tend to hasten the souring of the milk and cause various bacterial growths that will impart a disagreeable odor and taste to the milk. Such dust is as much out of place so far as clean milk is concerned as the other. Lactic acid germs are always present where the conditions are right for their development, and while they do not affect the sanitary qualities of the milk, they do affect its keeping qualities.

The milkers and handlers of the milk in the dairy rooms are a prolific source of contamination. Unclean methods of milking and the handling of the products afford opportunities for the pollution of the milk by disease organisms, as well as dust and dirt that adheres to the hands and clothes of the milker. Here is where such disease bacteria as typhoid, diphtheria and scarlet fever get into the milk. Milk as it comes from the healthy cow does not contain these bacteria. They come from the outside after the milk is drawn from the cow. Any person who has been in attendance on a sick person cannot work among the cows or in the dairy room without being a

source of danger to all who use the milk from such a dairy. Typhoid, diphtheria and scarlet fever outbreaks without number prove this point with their deadly results.

In the care of the dairy utensils there is still further chances for contamination. This trouble is not from bacteria that commonly adhere to these utensils but from those introduced in handling and washing. The washing and care of dairy utensils is one of the most exacting from the standpoint of cleanliness and the quality of the water used. A supply of bacteria-laden water which will leave some of these bacteria on the utensils is an insidious source of danger to consumers of milk. When the milk goes into these utensils there is a fresh supply of new food for these bacteria and they begin to grow and multiply with disastrous results. If typhoid germs are in well-water they will have a chance to contaminate any milk that goes into the utensils after they have been washed in such water. Numerous other kinds of bacteria, such as those that cause rosy, colored and slimy milk are frequently in well-water that is used in washing dairy utensils.

Cooling the milk immediately after it is drawn from the cow will retard the development of bacteria and the more the temperature is lowered the more the bacterial growth will be retarded. Milk that is promptly reduced in temperature to 40 degrees F. and held at that temperature until ready for use will keep for a long time. When the milk is shipped to the city the trouble is invariably with the morning milk, which goes into the cans without being properly cooled. In the fresh milk the bacterial growth soon exceeds that in the older milk that has been properly cooled. Cooling the milk does not kill any of the disease producing bacteria or the lactic acid bacteria, so that it cannot take the place of cleanliness in the production of milk. All of the bacteria present in cold milk become active as soon as the temperature conditions become more favorable. Cleanliness is of first importance, cooling is next.

Many instructive and entertaining articles have been written on the subject of clean milk, and if all of this advice could be carried out a practically clean product could be made. But the success of such a scheme involves expenses that would work hardship upon many of the producers at the present time. This is not saying that good milk cannot be produced at present prices, but to show that the dairyman who has a few cows can produce clean milk without having an elaborate equipment. He can keep his milk clean by simply giving attention to the few simple details of handling the milk and the small expense involved will require but a small outlay of time and money. Among the essentials of clean milk I would name a healthy cow, milked in a clean stable, by a clean milker into a clean pail, and handled only by clean and healthy attendants in a clean dairy room and put into clean shipping cans and immediately cooled down to 40 or 50 degrees and held at that temperature until ready to be shipped. By clean and sanitary milk I mean only such a degree of cleanliness as outlined in this paper, and which does not involve expenses that are entirely out of proportion to the average dairyman's means. Healthy cows and cleanliness will give milk that is bacteria free. Cold will keep it in this condition. We cannot get sanitary milk from cold dirty milk, or from warm and clean milk. Both of these factors are essential to success.

New York. W. MILTON KELLY.

SAVE THE MANURE.

While there is a general improvement in methods of handling the manure of the dairy herd, yet the great waste still going on, because of ignorance or indifference, is astonishing. The outlay for commercial fertilizers is forcing the attention of dairymen and other stock men, however, to the value of stable manure and is bringing them to a higher appreciation of its part in agricultural economies of the day. The campaign of education and inspiration that has wrought good and profit to the land by causing men to conserve manure on their farms, must be prosecuted even more vigorously than it has been and until commendable systems for keeping and applying this refuse of the stables are everywhere practiced. As a general proposition the immediate application of the manure to the land is the best way of cutting off wastes and one should give the problem very serious thought before deciding that this method is not applicable to his conditions. W.

DE LAVAL

CREAM SEPARATOR

Now Is the Time to Buy and Start the New Year Right

There is no good reason to defer the purchase of a DE LAVAL cream separator until Spring. On the contrary you may buy one now and save half its cost meanwhile. Moreover, if you can't conveniently pay cash you can buy a DE LAVAL machine on such liberal terms that it will actually pay for itself.

As to YOUR need of a centrifugal separator, if you have the milk of even a single cow to cream you are wasting quantity and quality of product every day you go without one. This waste is usually greatest with cold weather and cows old in lactation, and it counts most, of course, when butter prices are high. Then there is always the sweet skim milk and saving of time and labor in addition.

When it comes to a choice of separators DE LAVAL superiority is now universally recognized. Those who "know" buy the DE LAVAL to begin with. Those who don't replace their other separator with a DE LAVAL later—thousands of users do that every year. If YOU already have some other machine the sooner YOU exchange it for a DE LAVAL the better.

Why not start 1912 right in dairying? TRY a DE LAVAL machine for your own satisfaction if nothing else. See the nearest DE LAVAL agent or write us direct and we'll do the rest.

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HORTICULTURE

MICHIGAN HORTICULTURAL SOCIETY MEETING.

(Continued from last week.)

Thursday morning the balance of the topic left over from Wednesday afternoon, i. e.,

What Means Can we Employ to More

Profitably Market Our Fruits?

was taken up by Secretary C. E. Bassett, who discussed this topic under the sub-head, "Co-operation." Mr. Bassett stated that the two essentials desired were (1) to pack better, and (2) to distribute better. It is the fruit and not the package that makes the price. The high quality of the pack of western fruits is caused by the high freight rate which prohibits the shipment of poor apples. My part of the subject is the marketing and distribution of high-grade fruit. I will explain how Fennville growers expect to meet this proposition next season. Fennville is a large shipping point and plenty of buyers are on hand. Last fall after the meeting of the apple shippers association at Detroit, the buyers took an indifferent stand, simply looking at the fruit but refusing to buy at reasonable prices, it being apparently a game to "bear" prices. The growers finally held an indignation meeting and the price advanced fifty cents per barrel the next day, the buyers now offering \$2.00 where they had previously offered but \$1.50. The growers turned to the cold storage houses only to find that buyers had bought up this space. We are too near a market for our own good as we pack too much poor fruit on this account which gives us a bad name. As a rule, so long as the grower packs individually a strictly honest pack will not be secured. It is generally admitted that the average grower is not competent to pack his own fruit. It is too easy to spring the grades unintentionally or intentionally. The plan now proposed by Fennville growers is to have their fruit packed by experts. A competent superintendent will be secured who will have the foreman look after the packing without responsibility to the owner. The superintendent will also look after spray materials and machinery, fertilizers, packages, and collect information on crops and markets. A name and label will be adopted by the association. Fennville, with six neighboring shipping stations, handles most of the fruit from four townships. In some sections there are not enough growers to co-operate, which is a disadvantage in many ways.

Mr. R. A. Smyth, of Berien county, took up the legislative division of the same subject. Mr. Smyth lives in a county where there are many small growers, a large number being foreigners and co-operation in any form seems almost impossible. Mr. Smyth believes that the grower's or packer's name should be on each package. Too many growers try to work off their poor fruit with their good. In suggesting the package marking law to Chicago commission men one remarked that they didn't care to advertise us. He was then trying to work off some yellow Elbertas in August as Early Elbertas. Another buyer bought a car of Bartlett pears and found apples in the center of the barrels. These things from one grower hurt our reputation more than the honest packing of ten men will help it. Fruits should be sold by weight or by packages that are standard throughout the United States. In Idaho scaly fruit is confiscated. In Canada they have a fruit marks law. Upon request, Mr. Smyth gave his experience in trying to get a similar law passed in Michigan. He and some other growers as a committee, drafted a law somewhat like the Canadian fruit marks law. It required that the name and address be on every package, and that 85 per cent of the fruit in the package be as good as the face. It was introduced by their representative and passed the legislature, but the governor vetoed it, the reason given being the objection of the canners. Mr. Smyth has not been able to learn just why the canners object to such a law. Another law which growers have tried to get through is one making a standard size for berry boxes or baskets, 60 cubic inches seems to be about the usual size, but there are too many sizes on the same market.

A thorough discussion of the legislation advised followed, during which there was much comment upon the make up of the legislature and the indifference manifested by the growers. It was generally be-

lieved that the fruit marks law would be an excellent law for Michigan, and that when the growers wanted a law to make themselves honest without affecting the rights of others they should be allowed to have it. Governor Osborne was roundly criticised for vetoing the bill after the legislature had adjourned and without consultation with the growers, and resolutions to this effect were voted passed and sent to him.

Prof. Greene, Professor of Horticulture at the University of Ohio, who was present was called upon at this time for a talk upon

Fruit Conditions in Ohio.

Mr. Greene presented the greetings from Ohio growers, and stated that the society had also been deprived of state aid several years ago, but he believed was stronger for it. The secretary is an experiment station officer and partly paid by the station.

Apple culture presents the greatest interest in Ohio at the present time. Few orchards have been planted in southern Ohio for the past twenty years until recently, but many had been planted before this time and these are now being reclaimed with excellent success. Lime-sulphur is the chief summer spray. Thinning and packing are leading topics for discussion. The barrel is generally used. Mr. Greene stated that all Ohio growers believed in mulching and some in cultivation also. Both are good if properly followed, the one to choose depending upon local conditions. The majority do not practice either method as they should. There is no danger of an over-supply of apples in Ohio for at least twenty years as the old commercial orchards are too far gone. The need of co-operation is as great as here but except in a few localities the orchards are too scattered for good results along this line.

Prof. A. J. Patten gave a talk on

Fertilizers,

illustrating by tables the composition of the common fertilizing materials and explaining their use and availability. Prof. Patten stated that it is generally understood that if we rob the soil we must put something back. This is true, but not all of the truth. Three and one-half pounds of nitrogen, 24 pounds of phosphoric acid and nine pounds of potash is the amount commonly used per acre, yet this is but a drop in the bucket as compared with the original amount present. It is like scattering a few handfuls of feed in a pasture field. But fertilizers do more than furnish plant food. They change the physical condition of the soils. Experimentation is the only sure way of determining what fertilizers a soil needs. The successful use of commercial fertilizer depends upon the rainfall, physical condition of soil, drainage, rotation of fertilizers present, moulds, and many other factors. The average soil production is far below the maximum, as shown by occasional large yields, for example, 160 to 300 bushels of shelled corn per acre. Soils may be abused, but can never "wear out." The soil is there and can be reclaimed by getting plenty of humus on it before using commercial fertilizers. A live soil is full of bacteria and is rapidly changing. If there are not present commercial fertilizers will leach away and be of little account. Just as in fattening live stock there must be comfortable surroundings.

We can buy our fertilizer either mixed or unmixed. By the latter method we know what we are getting. Sources of phosphoric acid and potash are not very plentiful but nitrogen can be obtained from many sources as shown by the following table:

Source of Nitrogen—Mostly Available.	Per cent of Nitrogen.
Nitrate of soda	15.5
Dried blood	14
Tankage	10
Bone	2.5
Fish	8
Partly Available.	
Garbage tankage	3
Peat	2.5
Leather	9

Nitrogen costs from 16 to 20 cents per pound and it doesn't pay to buy much unavailable nitrogen, such as is found in the last three forms mentioned in the table. The chemist will soon be able to determine the source of nitrogen in mixed fertilizer. Peat is the most common "filler" used in such fertilizers to give the proper bulk, etc. By a little study any formula can be compounded at home. Formulas are always given in the following order: Nitrogen, phosphoric acid, potash, hence a 2:8:10 mixture means that it contains nitrogen, phosphoric acid and potash in this proportion.

Mr. Patten stated that it is difficult to

tell when a bearing apple orchard needs fertilizer, that it should not be necessary for the fruit grower to buy much nitrogen and that it has not been established that potash will add color to fruit. Prof. Greene and Mr. Crane did not believe from their experiments that potash adds color. Prof. Patten believes peach yellows to be a soil affection.

At this time the reports of the committees on resolutions and exhibits were received. Resolutions were offered supporting the McKinley Bill and Smyth Fruit Stamping Bill, and censuring Gov. Osborne for vetoing the latter bill.

The exhibit committee reported the following awards: In the students' judging and identification contest for prizes of \$15, \$10 and \$5 respectively, offered by the society, Mr. Smith received first with a percentage of 89, Mr. Taft second, 88½, and Mr. Schoesner third, 84½.

The Scaleside cup, which is to go to the person exhibiting the best three bushels of fruit and which was in the possession of Geo. Chatfield, of South Haven, last year, was won by C. J. Monroe, of South Haven. Wm. Harter, of Custer, received the Special Pump given as a premium for the best fruit sprayed with a Gould pump. The first six awards for general exhibits of fruit for premiums mentioned in the program were:

1. C. E. Campbell, Kalamazoo.
2. S. B. Hartman, Athens.
3. Allen Winne, Bangor.
4. Geo. Chatfield, South Haven.
5. Henry Smith, Grand Rapids.
6. C. B. Cook, Owosso.

After dinner a few questions were taken up. The prevalence of scale even in well sprayed orchards this season, Mr. Bassett said, was explained by government men by stating that a long drouth aided the breeding of the scale. Mr. Crane believed many growers were not thorough enough. It was not generally laid to poor spray materials. The prevalence of the codling moth was thoroughly discussed. Mr. Farland stated that they generally had trouble with worms the first year or two after taking hold of a neglected orchard. The following treatment was advised by Mr. White, of the horticultural department:

1. Strong lime-sulphur, 1 to 8 or 9 before buds open.
2. Lime-sulphur 1 to 35 or 40 and two pounds of arsenate of lead applied after buds swell but before they open.
3. Three pounds of arsenate of lead and lime-sulphur 1 to 40 applied just after blossoming.
4. Same two weeks later.
5. Same last of July.

Last summer the department arranged with growers in various parts of the state to band trees and catch and hatch out the larvae of the moth and report the date of hatching to the department, which then sent word to growers as to the proper time to give the July spray. To band trees first select a neglected tree, if possible, and scrape off the rough bark on the trunk and larger branches so there will be no scales beneath which the larvae can hide. Wrap several thicknesses of burlap about the trunk of the tree rather loosely and fasten with finishing nails so it can be removed easily in looking for cocoons. When cocoons are found put them in a pan with a little moist soil and cover with a glass and watch for the hatching period. The time of hatching varies with different varieties and in different parts of the state but only a few days as a rule. Variability in texture and in time of blossoming were suggested as causes of a lack of efficiency in results.

Mr. J. P. Munson, of Kent county, read a paper on the growing of gooseberries and currants, which line of work he has found profitable in connection with the growing of trees. Gooseberries and currants, Mr. Munson stated, were introduced from Holland and England, where they were formerly used to eat out of hand. The Houghton was introduced in 1853. Mr. Munson advises fall planting about six feet apart both ways or if between rows of trees 20 feet apart one row is put between the trees each way, making them 10 feet from the trees. They may be propagated from layers or cuttings. The borer is the worst enemy. One or two-year-old plants are used for setting, the broken roots being clipped off and the tops pruned to a saucer shape. Spray early in the season with lime-sulphur and arsenate of lead. This will control the scale and generally the worms, but if the worms appear later use arsenate of lead again, or if fruit is large use powdered Paris green and hebebores when the dew is on. The fruit gains much in weight during the last stages of ripening and should be left on as long

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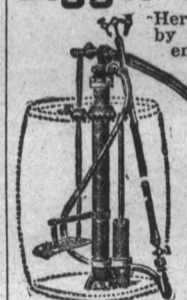
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as it is growing. Each picker is furnished with a box and canvas gloves and the gooseberries are stripped from the bushes and run through a fanning mill, the pickers being paid by the pound for the cleaned berries. Two hundred and ninety dollars worth of fruit was sold from 2,000 plants on one and one-half acres. The plants will reach maturity in from four to six years, and work in nicely between young trees.

The discussion brought out many interesting points. Only a few of the older canes are taken out each year. Cuttings are made six to eight inches long and keep in moist sand. Black currants are worth 16 cents per quart, but are light bearers. There is little demand for white currants. Wilder, Pomona, New Perfection, and Victoria are the varieties grown, the first three being the ones now set. The New Perfection has not fruited yet. Downing is the best market gooseberry. Houghton berries have some color but the pricklers are not so stiff. Cultivation is continued until August when a cover crop of oats and clover is sown. London Market does quite well. Currants can be left for a long time after ripening if not in a strong sun.

Pears for Profit

was the topic taken by Mr. George Chatfield, of Van Buren county. Mr. Chatfield believes that we should have pears for profit or not at all. Profit generally means success. First select a good site, clay loam is best. Pears on sand "are of few days and full of trouble." Select good stock and start two to two and one-half feet high. Never set a galled tree. One-year trees are best and it is best to get them from the grower rather than the jobber. Train them to a vase form, using sand bags to hold the ends of the branches down if necessary. Spray as for apples, and be sure to spray for scab just as the petals fall, and not a week later. Be thorough. Use plenty of pressure. Thin the fruit. Cut out the blight. Use stable manure to mulch bearing trees if it can be procured. Mr. Chatfield prefers to sell locally if possible, and avoid large markets. Bartletts, Clapp's Favorite, and Bosc are among the leaders.

The discussion brought out a statement that blight had taken yearling Kieffer trees for one member, and that little trouble had been experienced from the pear psylla since using lime-sulphur. Mr. Rose controlled them by spraying just as the psylla were hatching. He has also had good results with pears on sandy soil, selling the crop for \$1.50 per bushel orchard run. He likes the Seckel and gets \$2 per bushel for them, while Mr. Chatfield thinks them too small for his market. Mr. Rose uses a cover crop of clover, Canadian field peas, buckwheat, or oats. Mr. Crane controls the scab by spraying thoroughly just before blossoming. Mr. Farrand told of a Michigan man cutting down 20 acres of Bartlett pears because he said there was no market for them. Most growers had not had good success in top-working Kieffer to Bartlett, the union being poor.

Mr. C. B. Cook, of Owosso, spoke briefly of

The Fruit Grower's Opportunity.

He stated that the sum total of human happiness was made up of little things, and told of the adage of the man who found opportunity at home after circling the globe in search for it. Michigan was worth little to the Indian. The waters were thought so slow and sluggish as not to be worth a dam—now they are a source of power throughout the state. Michigan is well at the head in the production of salt, copper, lumber and beans, but its greatest opportunity lies in the growing of quality fruits, of which Michigan growers have almost a monopoly. The scale has wiped the sluggish competitors off the map and good growers have the field to themselves. We have the climate, soil, and quality, but we must get more truth and honesty, which Beecher says must, like marksmanship, be cultivated.

President T. A. Farrand, of Eaton Rapids, closed this very interesting session by a talk on

Lime-Sulphur as a Substitute for Bordeaux in the Summer Spraying of Apples.

Mr. Farrand stated that his experience with the lime-sulphur had been exceedingly satisfactory and he would use it entirely in the future. The russetting thought to be due to the use of Bordeaux was almost entirely absent. The foliage was burned a little, which result was thought to be due to its use in combination with arsenate of lead, but this is the best combination we know of.

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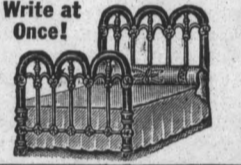
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DETROIT, DEC. 30, 1911.

CURRENT COMMENT.

In wishing our readers a New Year prosperous and happy New Greeting. Year we desire that the greeting should be construed in a broader sense than it is sometimes used. In addition to wishing every reader of the Michigan Farmer a season of material prosperity and good health to enjoy the comforts and pleasures which material prosperity may place within their reach, we would wish for each and every one of them the personal satisfaction and happiness which is the result of right living.

While the idea of "turning over a new leaf" at the beginning of each New Year has been often the subject of ridicule, and perhaps properly so in view of the record which has been made on the new page in life's work, yet there is no more noble aspiration that one which involves the betterment of our personal character. If the page of life's history devoted to a record of our acts during 1912 indicates that we have successfully aspired to a strengthening of our character along right lines, then the "New Year" will have been indeed a happy one for us, and prosperous, too, since a wealth of good character is more to be desired, from the standpoint of our own happiness, than great riches.

Let us, then, each and every one not only aspire to that greatest of personal assets, good character, but strive to strengthen our personal character during the coming year, to the end that we may not only enjoy greater personal happiness and more enduring prosperity, but that we may add to the sum of human happiness and prosperity through our wholesome influence upon others. In this sense, at least, let our holiday greetings have a real significance. Let us strive during the coming year to make brighter and happier the lives of all with whom we come in contact. Thereby we will be most certain to reap the benefit of having their New Year wishes for us realized to the fullest possible extent.

The Mortgage Tax Law.

In another column of this issue will be found a criticism of the new mortgage tax law from the pen of a constant reader of the Michigan Farmer who has served his township in the capacity of supervisor. We believe that his opinion may be taken as fairly representative of

the views held by assessing officers throughout the state as to the desirability of exempting mortgages from taxation, which this law practically does. Also we believe that the large class of property owners who neither loan money nor borrow money on mortgage security, all of whom are adversely affected by the law to a small extent at least, will in general coincide with this opinion.

There has ever been a wide difference of opinion among interested people, and particularly among members of the legislature, regarding the policy which the state should pursue in the taxation of mortgages. It has been contended, and with some justice, that the taxation of a mortgage and the land on which it is secured at its full cash value is really double taxation. Some years ago, as a means of remedying this condition, a law was enacted which provided for the exemption of the value of mortgages from the valuation of the mortgaged real estate. This law did not work out as it was intended, since, through the conditions which then prevailed, the money lender was able to compel the borrower to agree to pay this tax.

Contrary to the opinion expressed by the writer of the article above mentioned, we believe that there was a tendency toward lowering interest rates caused by the brief operation of this law, which was promptly repealed by the succeeding legislature. Of course, it is impossible to fix upon the cause of any effect with absolute certainty where so many factors enter into the problem, but whether this law, which had the effect of partial exemption of mortgages at least, was responsible for the fact or not, it followed that the interest rates were somewhat lowered and considerable money was loaned on farm security at five per cent, while the prevailing rate is now six per cent. We are of the opinion that this practical exemption of mortgages will bring more money into the market for such investment, especially from residents of cities and towns, who could not afford to loan money at low rates and pay taxes on some where mortgages were locally assessed at their full value, and that such increase of available money seeking investment in farm loans will result in the ultimate reduction of interest rates on such loans.

This result, should the prediction be verified, would be beneficial to those who find it necessary or to their advantage to borrow money on real estate mortgages. It will, however, have the practical effect of increasing the tax rate on other property to a corresponding degree, and it remains a question of public policy as to whether such a law is good policy or otherwise from the standpoint of the commonwealth, for which reason we have welcomed the discussion of this topic as we shall welcome the discussion of other topics relating to taxation in the near future.

No recent state document has been of more general interest throughout the country than the special message to congress last week by President Taft, touching the report of the tariff board regarding their investigations of the relative cost of producing wool and wools at home and abroad and containing a recommendation for the revision of Schedule K which relates to the importation of this class of goods.

After giving his reason for vetoing the tariff bill revising the wool schedule, which was passed by congress at a special session last summer, which was that the report of the tariff board was not yet available, President Taft made the report of this board the basis for his present recommendation to congress regarding the revision of the wool schedule. This report was summarized in the message which showed that as at present framed, many of the high ad valorem duties of the wool schedule are prohibitory since the wools covered by them are not imported, and many of the compensatory duties which are supposed to compensate the manufacturer for the enhanced cost of the raw material due to the duty on wools are much in excess of the amount needed for the ostensible purposes for which these duties are levied.

It was found by the tariff board that the increased price of wool and woolen goods due to the protection afforded by the tariff did not equal the amount of tariff in any case. As an illustration, on some samples of English cloth on which there is a nominal duty approximating 183 per cent, a duty which is prohibitory in character, the same or practically identical fabrics of domestic make sold

in this country at a price only 67 per cent greater than the price in the foreign market. Exhaustive investigations made in this and other countries by the tariff board show that the cost of producing wool is considerably higher in this country than abroad, particularly in Australia and Argentina, while the cost of producing cloth is nearly 100 per cent higher in this country than is the case in England.

An interesting feature of the tariff report is the estimate made from the statistics which they have secured to illustrate the point involved in their investigations. Taking a suit of clothes retailing at \$23, which is declared by the board to represent fairly the suit of clothes worn by the average American, the board states that the farmer received \$2.23 for the wool such a suit is made of, his profit being 68 cents. The manufacturer receives \$4.78 for the cloth, his profit being 23 cents. The wholesale dealer receives \$16.52 for the manufactured suit, his profit being \$2.18, while the retail dealer receives \$23 for the suit, his profit being \$6.50.

These figures may, of course, be taken in a relative sense, but they appear to show that in the products of wool, as in food stuffs, the high cost of living is largely due to the excessive cost of distribution, rather than to exorbitant profits in production, a fact which was touched upon in the resolution adopted by the National Wool Growers' Convention at Omaha, a report of which is given in another column of this issue.

In touching upon the substitution of an ad valorem for a specific duty upon wool, President Taft made the point that an ad valorem duty affords the least protection when prices are low and producers need the protection most and the greatest degree of protection when prices are high and the producers need it least and when the effects will be felt more largely by the consumer.

In their report the tariff board made no suggestion as to the proper rate of duty to be placed upon wool or woolen goods, simply transmitting the facts, for the information of congress, relating to the difference in the cost of production at home and abroad. President Taft followed their example and does not suggest any specific rates to be applied to either raw wool or manufactured goods. He recommends, however, the levying of a specific duty on wool to be applied on a scoured basis, instead of on the wool and grease alike, as in the present schedule.

If such a duty were applied it would unquestionably simplify the schedule and probably permit the importation of wool which can be used in place of cheaper and less valuable substitutes, as suggested in the President's message. In fact, it would appear from the data presented, that congress has more reliable information upon which to formulate a satisfactory wool tariff than ever before and if a bill could be formulated along the lines laid down without consideration for anything save the public welfare the matter would be well settled.

The National Wool Growers' Association at its recent meeting went on record for the settlement of the wool tariff issue on the basis of the tariff board's report. Unquestionably it would be to the advantage of the wool industry of the country to have this issue definitely settled and if congress would now act upon the information in hand without political prejudice or industrial preference the result would undoubtedly prove beneficial, not alone to the wool industry but to the country at large. There is now an opportunity for the exercise of true statesmanship on the part of our congressional leaders in the revision of Schedule K on other than partisan lines. The non-partisan tariff board were able to get together on the facts and submit a unanimous report. Let us hope that congress will rise to the emergency without more than necessary delay and give us an early and honest solution of the problem which will make for the stability of a much abused industry.

In a recent report prepared by Secretary Murray, of the state board of corrections

and charities, attention is called to conditions which prevail in many of the county infirmaries of the state which should be given the widest publicity, to the end that they may be corrected through the arousal of a healthy public sentiment. According to Mr. Murray's statement, many of the infirmaries are poorly adapted to present needs, having been added to as more room was needed

in a haphazard way, thereby rendering their arrangement unsatisfactory. Also, in too many cases there is poor sanitation and an overcrowded condition which does not admit of the proper segregation of the sexes and of defectives. Regarding the crowded condition of the infirmaries Secretary Murray says:

"This congested condition is made obvious by the fact that within the last 20 years, there has been an increase of 70 per cent in the average number of persons maintained in the infirmaries of the state. The increase of population for the state for the same period was 34 per cent.

"These figures do not represent the increase of indigency, for during the period in which there has been an increase in the average number of inmates in the infirmaries, there has been a gradual decrease in the number of indigents, who received permanent relief outside, indicating a decided tendency to care for the unfortunates in the county institutions rather than by extending outside relief.

"The overcrowding of infirmaries under the conditions which prevail in some counties is unjust and inhuman. It is not unusual to find rooms crowded to double their normal capacity. In the construction of infirmaries the matter of ventilation seems to have been generally ignored or neglected. Imagine the conditions in an infirmary, absolutely devoid of ventilation, into which are crowded aged men and women, many of whom are physically unable to care for themselves. These conditions have been found.

"In 1910 there were 3,514 inmates in these infirmaries, of which 172 were children, 833 insane, 103 idiotic, 335 feeble-minded, 59 epileptics and 55 ill with tuberculosis. These figures represent a world of trouble and injustices. Because of lack of facilities for separating and classifying this heterogeneous population it is often found huddled together, and the inhumanity and injustice of it is beyond comprehension except by those in close touch with actual conditions."

Certainly there can be no disposition on the part of the taxpayers of the state to permit the unfortunate indigent poor to be ill treated. Naturally the boards of supervisors of the several counties desire to conduct this branch of the county work as cheaply as possible, but if they are backed up by public sentiment they would be sufficiently liberal with appropriations for the purpose to give the indigent poor and other unfortunates who become county charges habitable quarters and reasonably good care.

A TAXATION PROBLEM.

This being the season of the year when the tax collector is reaping his annual harvest, it occurs to us that now is an opportune time to discuss briefly a few phases of the taxation problem. The question which seems of grave importance to us is: How shall the state, county, city and township tax be spread, so that every dollar, whether real or personal, shall bear an equal burden of taxation? All supervisors throughout the state are instructed, by our state tax commissioners, to assess the property in their several wards and townships, on a strictly cash basis. Our state officials, from governor, down, are demanding that an equal tax shall be levied on all classes of property, operated for profit and gain, including corporations and private incomes. We have no criticism or objections to make if these conditions can be legitimately and honestly carried out, but we hesitate a moment to consider the facts.

Have our chief executive and state law makers, taken a wise course in practically removing from our tax rolls forty million dollars in mortgages in various portions of the state? Will the revenue from this mortgage tax exemption law, with a registration fee of one-half of one per cent, when recorded, equal or come within gun shot of the amount derived from a full assessment of these mortgages, even if a few mortgages held by our banks should evade taxation? The argument to the writer, seems very one-sided when applied to a mortgage running for a period of years, requiring simply a registration fee of one-half of one per cent—less than one-half and often one-fourth of an average annual tax; in reality, exempting said mortgage from taxation, until paid in full.

We are all well aware of the fact that our state officials and institutions must be amply provided for, as well as our county and township appropriations; and, from the admission of some of the advocates of this law, there will be a deficiency in our public treasury owing to the exemption of mortgages from our tax rolls. Where, then, shall we place this shortage that our disbursements may be met in full? Why, I answer, on the individual owning real estate, the landowner, the mortgaged farmer, the owner of a modest home in the city—in short, it will be placed on the man or woman

who owns property in sight and which they could not hide if they so desired.

Is this right and a square deal, when we consider the fact that about 25 per cent of the farms of Michigan are mortgaged, and the mortgaged farmer is not only compelled to pay taxes on land he does not own, but now he is asked by our late legislature to bear an additional burden in order that the mortgagee of his homestead may be exempted from taxation, after he has deposited with his country treasurer the munificent sum of one-half of one per cent? The claim made by advocates of this measure that money will be cheaper we are not willing to admit. Also, that it has proven a success in New York. If this be true, why? Surely not through the influence of the land owner and the mortgaged farmer, but by the persistent energy of the money lender.

With all due respect to the chief executive and law makers of this state, we would not harbor malice or distrust, in their manipulation of state affairs, but we do believe in this great commonwealth of Michigan, with our homes, schools, and churches, of which we are proud, that every dollar's worth of property bear an equal burden of taxation, regardless of to whom said dollar may belong.

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C. J. REED.

HAPPENINGS OF THE WEEK.

National.

The state commission of tax inquiry of Michigan, provided for by the last legislature, has made its final report to the governor in which it recommends amendments to the present taxation law by increasing the power of the present board of tax commissioners to the end that that body may put all property on the rolls for taxation at its full cash value. This recommendation is aimed particularly at corporations which the commission insists are not assessed as high as general property. The findings of the commission show that a rate of \$5.21 per \$1,000 is paid by corporations, whereas the entire property of the state pays \$12.05 per \$1,000.

The combination of theatrical interests in this country is being investigated by the United States district attorney, who is of the opinion that the combination is contrary to the trust laws of the country. As a result, the trust officials have rescinded an agreement reached between the east and west territory to defeat, if possible, the purpose of the federal department of justice.

A car containing 61 persons plunged over a trestle at Cape Horn, Pa., and fell into a creek. Only three of the passengers escaped injury, none, however, were killed but several were severely hurt.

The plant of the Daily Calumet, a newspaper of South Chicago, which has been conducting a crusade against the writers of blackhand letters, was dynamited on Christmas day. No one was injured but the plant was rendered a total wreck by the explosion.

Theodore F. Shepard, former judge of the Bay City circuit court, and for 45 years prominent in the political, professional and social life of Bay City, died there at the age of 67.

Two boy skaters were drowned by breaking through the ice on the Muskegon river near Big Rapids, Christmas.

The total losses to vessels on the great lakes the past year amounted to 23. One hundred and ninety craft have been lost in the past seven years, 48 in 1905, 44 in 1906, 14 in 1907, 16 in 1908, 30 in 1909, 15 in 1910 and 23 during the past season. The total loss to underwriters for the season amounted to \$500,000.

Ice cream poisoning is said to be the cause of two deaths and the critical condition of four other persons at Olvey, Ark., December 24. The victims were six of ten persons who were parties to a five-fold wedding that was to have been held on Christmas day. All the brides were sisters and the grooms were brothers, save one who was a cousin.

To provide fuel for its own use the Grand Trunk railroad has purchased 31,000 acres of coal lands in Belmont county, Ohio, for \$3,000,000. The output of the mines included amount to 750,000 tons per year.

The national monetary commission will make its report to congress in January, when it will recommend the Aldrich plan of controlling our currency which provides for a reserve association, the capital stock for which can be subscribed only by banks of the country. All banks which subscribe must become members of an association, which must consist of at least ten banks having an aggregate capital or surplus of not less than \$5,000,000. The deposits now held in the treasury and sub-treasuries of the government will be placed in these banks. It is expected that the entire committee regardless of party affiliations, will sign the report.

Foreign.

General Bernardo Reyes, once the greatest military leader of Mexico, and more recently leader of a revolt which threatened the Republic under the administration of President Madero, has surrendered to the government forces. His failure to recruit an army so discouraged him that he lost hope in ever succeeding in his purpose to establish another government, although in the mountainous regions of that country he

could have continued the revolution for many years, even with a handful of followers. It is predicted this surrender will end the unrest in the Mexican Republic and that the new government can now begin constructive work in rebuilding the nation.

The tentative agreement between Canada and the United States looking toward the settlement of the fisheries dispute, is being delayed by the attitude of the Canadian government where a sentiment has developed objecting to the American interpretation of certain terms of the treaty, as well as to provisions under which Pacific coast fisheries are to be regulated. Just how this attitude will affect the final agreement it is too early to predict.

Reports are reaching this country telling of the struggle between the Russians and Persians in the northern part of the latter's country. The purpose of Russia is to gain a port on the Persian Gulf. It appears that for a long period back effort has been made in this direction. A considerable amount of Russian capital has been invested in Persian territory, and now, under the excuse of protecting this capital, effort is being made to absorb the nation, which naturally is being strongly opposed by Persian troops. The campaign is meeting with disapproval in England because Russian occupancy of territory along the Persian Gulf would embarrass English interests in that part of the world. It is likely, therefore, that should the conflict proceed, England may take a hand in the struggle. It is stated that the warfare thus far has been carried on in an inhumane manner, innocent women and children suffering at the hands of the Cossacks; at Tabriz 500 such persons are reported as having been killed.

The Spanish forces in Morocco have recently been attacked by the wild tribesmen. Severe fighting occurred last Friday and Saturday, the tribesmen being repulsed but a number of Spanish soldiers are reported killed.

The Moros, who have been revolting in the Philippine Islands recently were peacefully subdued by the Philippine scouts.

The Japanese press expresses satisfaction over the controversy between the United States and Russia, they believing that the situation will be an incentive for a closer union between them and Russia, for whose trade they are anxiously seeking.

CROP AND MARKET NOTES.

Shiawassee Co., Dec. 12.—Weather variable, with frequent rain and snow. The roads are improved, but in bad condition for handling heavy loads. Many farmers have been to haul, but are unable to do the work on account of the unfrozen condition of the fields. A good many acres of beans unpulled and many more in piles in the fields. Farmers have been in hopes a few days of drying weather would come in December, but too late now to continue hopes. Wood cutting in progress. A few acres of splendid natural timber is being cut off and marketed this winter. Hay bringing the highest price in years and many farmers are selling all they do not need for wintering their stock. Feed generally, however, is scarce. Potatoes are being marketed quite freely. Cattle fruits are not keeping well. Wheat is looking well. All winter crops are going into the winter in splendid condition. Lamb feeders are hanging over the fence wondering who will make the profit this winter. Several car loads received each week and put on feed. No cattle going on feed. Horses of the strictly draft type are selling high. Milch cows are also very high and scarce.

Washtenaw Co., Dec. 21.—The year just drawing to a close has been rather a trying one for the farmer. Nevertheless one from which many lessons may be drawn for future use. First it would seem that the dairy farmer is better equipped to withstand adverse conditions than those following other lines. While much fodder and corn were very badly damaged by the wet weather, still by balancing them up with concentrates a large amount of value may be secured, which becomes quickly available in the monthly milk check. The subject, however, nearest the farmers' heart at present is his taxes. Seemingly the more sources from which to derive a tax the higher they become. It is certainly time for farmers to seriously consider a situation which will be a serious menace in the near future. Taxes in this country have practically doubled in the past ten years, and while the gross income from farms is good, the net income in very many cases is small. Prices not much changed. Butter and eggs maintain their recent high levels.

Lapeer Co., Dec. 18.—About seven inches of snow fell Saturday; roads in bad condition. More than half the corn crop yet in the field, owing to so much rain, snow and cold. Very little live stock being fed in this locality. About 100 hogs have died near Lapeer city with the swine plague, and it is expected many more will go soon. Very little fall plowing here; looks like a very busy spring coming. Prices good on nearly all produce. Hay very scarce and selling for around \$18 per ton; cream, 35c at creamery. The corn being sold brings 70c per bu. Beans nearly threshed and picking from one to 40 lbs.

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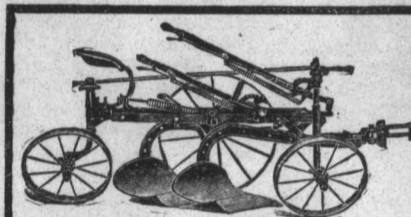
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PRACTICAL SCIENCE.

SOILS AND PLANTS

BY FLOYD W. ROBISON.

"Hitch Your Wagon to a Star."

One of the enduring sayings of that celebrated American essayist, Ralph Waldo Emerson, has been oft quoted by speakers and writers, to-wit: "Hitch your wagon to a star." This theme has been used in the school room, in the Sunday school, and in various ways to stimulate the establishing of high ideals. It seems to us that the expression more correctly applies to Emerson's appreciation of the value of calling to our aid the resources of nature. Little is to be gained by discussing ennobling influences and desirable processes from merely an idealistic standpoint. We accomplish little by urging the conserving of the fertility of the soil because we may feel that morally it is the right thing to do, but if we find that by such conservation we have laid hold and harnessed into action for our purposes an agency of nature, we have some incentive in the matter. We are calling this matter to the attention of our reader not with any idealistic motive in mind, although nature's processes are in themselves exceedingly beautiful to dwell upon. The effort of nature at the preservation of the species and the protection of the individual are examples of the workings of the agents of nature which have, because of superiority, become selected through years and years of life to perform the particular office that they are selected to perform. We are calling this to the reader's attention so that there may be thoroughly impressed upon his mind the idea that much more is accomplished by working along a path which nature has demonstrated is an accessible path to work upon rather than individually damming up the stream to find a new channel for one's efforts.

The Perpetuation of the Species.

Nature has seemingly beautifully provided for the preservation of the species by arming each particular individual in one or another way against its enemies. Some plants which have to depend entirely upon the agencies of nature for their perpetuation have developed certain special peculiarities which are their greatest protection against their enemies. The various cacti have, on the epidermis, the outer covering of the plant, large, sharp spines which make them more or less immune from the attacks of foraging animals which otherwise would feed upon them. We are familiar with certain thistles such as the Canadian thistle, and other prickly plants, the flesh and leaves of which are exceedingly nutritious and without the protection which nature has given them in the way of these spines they would become ready prey to the various animals and their species would be more rapidly obliterated from the earth.

In a like way nature seems to have beautifully guarded the seeds of various plants to make certain that their reproduction is assured. Take, for example, the common hickory nut or the walnut. These fruits which contain the reproducing element of the plant are protected by an exceedingly hard, bony structure which makes it difficult for the natural enemies of that nut to gain access to the reproducing element contained in the shell. The chestnut is another excellent example. The seed contained in the fruit is an excellent food and without any protection whatsoever it would be easy prey to the various animals which would seek it for sustenance. To reproduce its species, and to make sure that it will not perish from the earth, nature has given the seed an exceedingly strong and safe protection in its outer covering. The beechnut is a similar example.

Some are protected because of a particular color which, when the seed falls to the ground, renders it inconspicuous among the surrounding leaves whereby squirrels, birds, and various other animals will not readily perceive the seed and, escaping, it has a chance to sprout and reproduce the species.

Insurance of Fertilization.

Nor is this phenomenon common alone to the fruit and the seed. Nature in one way or another, protects it and provides for it all through life. One is impressed with the enormous array of the blossoms of various plants, some white, others yellow, pink, all the colors and shades imaginable. One wonders, if at all of an inquiring frame of mind, why all these

variegated colors exist. It seems to us that the real lesson to be learned in this is the variety of ways which nature has adopted through the operation of natural agencies to insure the perpetuation of the species.

You will remember that in order to secure the development of the corn the fertilization of the plant is necessary. Not fertilization in the sense that we speak of commercial fertilizers, but fertilization in the sense that the tiny seedlet in the ovary of the mother plant must be fertilized in order that the grain of corn may grow to perfection. Otherwise the blossom blasts and the ear of corn does not develop. In some of our domesticated plants which are more or less artificial in character, these various provisions of nature are not so apparent but in nearly all wild species we will see that nature has abundantly provided for the fertilization of the blossom.

Some blossoms are beautiful in color, which make them attractive to insects, etc., which in extracting from the flower the honey which it contains will have rubbed upon their bodies the tiny grains of pollen which the blossom has to offer and which, carried on the bodies of the insects and birds to the next attractive blossom, serves as a means of fertilization to the plant, thus perpetuating the species. Others which do not have a particularly attractive blossom perhaps are possessed of a nectar which has a delightful aroma which serves the same end. Certain night-blooming species have a color which is especially prominent in rendering them attractive at night to the particular insect or animal which is adapted for the fertilization of that flower.

This theme has been the subject of the writing of numerous individuals who contribute a variety of reasons for nature manifesting itself in these manners. For instance, the carnation is invested, some say, with a pink blossom because, as they say, it is especially attractive to the individual which the plant desires to be the instrument of its cross-fertilization. The same reason has been applied to the protective coverings of the seeds and to the various so-called attractive colors of the various animals. Some butterflies are particularly conspicuous in the color designs which are worked upon their wings. Some birds are particularly inconspicuous because of the beautiful blending of the colors of their plumage with the leaves and surroundings to which they are subjected, thereby rendering them safe from their enemies.

To our mind the reason for these various conditions is entirely different from the one usually assigned. We do not believe that the carnation was made a beautiful pink flower in order to render it especially attractive to the individual which will act as the instrument of its cross-fertilization. We do believe, however, that through the natural cause of variation of species the original carnation perhaps, or its undomesticated ancestors produced flowers of a variety of colors. The pink one reproduced itself and fixed its characteristics decidedly because it did happen to be the one color which was attractive, as a matter of fact, to some particular animal or insect.

We do not believe that a particular species of butterfly exists because nature provided it with a particular coloring which was for the purpose of frightening the bird or insect which preyed upon it. We do believe, however, that, due to the natural causes of variation of species, there was one time a butterfly produced which, as a matter of fact, happened to be so colored that it was either unattractive to the animals which usually preyed upon butterflies or else did actually frighten the animals away, whereby, being left, it was able to fix its characteristics upon the species. We do not believe that the partridge or the quail have developed the inconspicuous color of brown which so matches and blends with the leaves of the forest, for the express purpose of rendering that bird inconspicuous to the animals and birds that usually prey upon it. We do believe, however, that in the natural variation of the species the color was produced which, as a matter of fact, was inconspicuous, and whereas the other forms of color were so inconspicuous that the species were not allowed to continue, this particular color serves as a protection to the quail and the partridge, and consequently their color was preserved and they were allowed

to fix their characteristics in the perpetuation of that particular species.

This is a general condition of nature and exists throughout not only plant life but animal life as well, and enumerates but a few examples which are more or less typical, however, and which show that nature through years of experimentation, we may say, has gradually weeded out those forms of life which are not desirable in fulfilling the laws of creation. It demonstrates also the truthfulness of Darwin's original position, expounded in the theory of the "survival of the fittest" in each particular step of universal evolution.

Nature's Example is Worth Following.

In plant and animal breeding the greatest progress has been made along lines which imitate nature's selection and breeding. Some condition produces a desirable strain of corn or a wheat berry which is promising in certain characteristics. The encouraging of the perpetuation of that particular species is the way in which man may bring his talents to bear to the best advantage in intensive agriculture as applied to crop production. Even so, in advanced animal breeding, the selection of those qualities in an animal which emphasize the quality or characteristic which is the one which we desire to make most prominent in the breed is taking advantage of nature's suggestion of natural selection in breeding and is the way in which man can most quickly accomplish desirable results in the lines of animal breeding.

The old adage, "Like begets like" was the foundation point of early animal breeding and we might say as well that the old adage is as true to nature today as it ever has been in the past. If we will learn a lesson in the breeding of plants and animals from the methods now employed by nature we will be taking advantage of a system which centuries of cutting and trying has established as the most feasible system for the up-building of plant and animal life.

LABORATORY REPORT.

Keeping Cider Sweet.

Can you tell me how to preserve cider to keep it sweet the whole year long?
Emmet Co. H. G.

There are a number of ways by which cider may be preserved so that it will remain sweet for a considerable period of time. The best way, and the one which meets with universal approval, is by heating the cider and canning the same as you would can fruit. This method could not be used very easily on as large a quantity as a barrel, but when the cider is put up in bottles or glass jars it is possible, with great ease, to sterilize by heating.

The common commercial method for preserving cider is by the use of some chemical preservative. The one most commonly used for this purpose is benzoate of soda. We do not care to be put in the position of advising the use of any chemical preservative. To our mind they are all, or nearly all, prejudicial to the health and should not be used, despite the fact that the law of Michigan permits the use of benzoate of soda and benzoic acid, and also that the ruling of the United States Department of Agriculture is favorable to the use of benzoate of soda. If it is used, however, it is imperative in the laws of both state and government that the fact of its employment be plainly stated on the label. For example, the label on the barrel or on the bottle must say, "Preserved with benzoate of soda not exceeding — per cent." The usual statement on the label is, "Contains .1 per cent of benzoate of soda." As demonstrated by the Dairy and Food Department of the state of Indiana, comparatively few contains so small an amount as 0.1 per cent. In our own experience, we have found that 0.1 per cent is not adequate to properly preserve cider and therefore it should be used in greater quantities if used at all, the amounts being plainly stenciled on the barrel or printed on the label.

We want to emphasize again, however, that we do not think it good policy to use chemical preservatives of this class in the preservation of fruit juices.

Misnomers Applied to Feeding Stuffs.

Barley bran is a misnomer.
Cottonseed bran is a misnomer.
Elevator feed is a misnomer.
Cottonseed meal feed is a misnomer.
Cottonseed feed meal is a misnomer.
Oat feed is a misnomer unless applied to whole ground oats.
Flax feed is a misnomer unless applied to a whole ground flaxseed.
Flax bran is a misnomer.
Oat nubbins is a misnomer.



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GRANGE

THE STATE GRANGE OF 1911.

(Continued from last week.)

Government ownership of railroads was one of the weighty problems considered by the committee on public utilities of which B. E. Kies, of Hillsdale county, was chairman. The recommendation of the committee touching this big question was, by many of the delegates, considered radical, but it was so well defended by the committee that the entire report was finally adopted, many apparently believing that its adoption would at least serve to awaken greater interest in, and to bring about a closer study of, the question. The resolutions, as worded by the committee, are:

"Resolved, that we favor a proposition wherein the United States government shall build, equip, and operate a double track railroad and a telegraph line, from the Atlantic to the Pacific with feeders or lines to the great commercial centers, north and south of said road, except those located on tide water.

"Resolved, further as a means of carrying out said undertaking that the United States government shall issue currency (equal to or better than the currency issued at cost to the national banks) in issues sufficient to pay all cost of the operation.

"We favor the United States government building and operating railroads in Alaska from the coast to the coal mines, also the operation of sufficient coal mines to prevent a monopoly upon this prime necessity of life by any private corporation forever.

"We favor leasing coal or mineral lands to individuals or corporations, provided equitable and just terms can be made with an eye singly to the interests of the consumer.

"We further demand that no more timber, mineral or coal lands now belonging to the government shall ever be sold to individuals or corporations, but shall be leased on favorable terms for the government or people.

"We also demand that our waterways and streams, which will in the future furnish the greatest power for the people, be strictly and carefully conserved for them.

"Resolved, that the members of the State Grange favor the extension of free rural mail delivery, the establishment of a general parcels post, telegraph, and telephone system, also postal savings banks and a postal currency.

"In other words we insist that the people take charge of and perform their own business rather than delegate the same to private corporations."

A new committee, appointed for the first time at this meeting, was that on home economics. Its members had little to work on as no resolutions or suggestions had been submitted to the committee. The report briefly surveyed the field which this committee is expected to cover and closed with the recommendation that home economics be included with agriculture in the public school curriculum, which was endorsed by the delegates.

The efficiency of the present system of lecture work was attested by the committee on good of the order and its continuance recommended. The committee also favored the holding of as many lecturers' conferences as possible, and recommended that the holding of rallies and field day meetings be encouraged. The deputy system in the opinion of the committee, is open to improvement but no concrete suggestions were made. Greater caution about giving publicity to matters that are solely of interest to members of the order was advocated, and the Grange everywhere was urged to put forth greater efforts to bring the young people into the organization. A bulletin board as a means of announcing meetings of committees, etc., at next State Grange meeting was proposed. Thus far the report was adopted. Action on a resolution favoring the nomination and election of State Grange officers by direct vote of the subordinate Grange members of the state was deferred until a later session, and a resolution changing the compensation of state speakers when called by subordinate Granges was referred to the executive committee.

The committee on taxation, E. R. Illend, of Lenawee county, chairman, had planned for a conference with one of the members of Gov. Osborn's special tax commission but this did not materialize. In consequence it offered no recommendation touching the proposed corporation

excess tax, but urged all Granges to make a careful study of the proposition in general and the commission's published report. It endorsed the recently enacted specific mortgage tax law and recommended that the taxation of corporations be taken out of the hands of local assessing officers and put into the hands of a state board of assessors. It re-affirmed the views of the Grange, as expressed at former meetings of this body, with regard to the tonnage tax, declaring this system of taxing the mining properties of the state to be more just and equitable to all concerned than any of the three plans suggested by the special tax commission. The committee's proposal to ask the legislature to increase the state automobile license fee, and to divide such fees equally among the townships of the state, was amended by the delegates to accord with the Grange's former action, asking that a tax of 50 cents per horsepower be imposed upon automobiles, the funds thus secured to be apportioned among the townships according to their assessed valuation.

The Grange insurance companies were cited, in the report of the committee on co-operation, as the best examples of the value of effective co-operative effort. The present contract system was deemed inadequate to the needs of members and the committee urged that local Granges give their best thought and effort to devising means of more effectually eliminating the middleman, bringing all plans devised to the attention of the State Grange executive committee.

The good roads committee, of which A. W. Thompson, of Dickinson county, was chairman, favored a law authorizing county road commissions to furnish legal and engineering advice to township officers on matters pertaining to highway improvement, the committee holding that the need of such assistance is felt in many of the more than 1,200 townships of the state that elect highway commissioners under the township system. It also favored a strict enforcement of the law requiring county road commissions to employ competent engineers to superintend all highway improvement work done under the county road system. The appointment of county road commissioners by boards of supervisors was recommended and the action of the National Grange in favor of federal appropriations for highway building was endorsed.

The committee on transportation recommended the placing of the express companies under the supervision of the Interstate Commerce Commission. It also commended the action of Kent and Ottawa counties in voting bonds for the purpose of building roads.

Representative McNitt, of Wexford county, submitted the report of the committee on legislative action, in which the Grange was asked to endorse the initiative, referendum and recall, the tonnage tax and the parcels post, all of which met with favorable action. A proposition to limit the tenure of office of supervisors to three years was amended by the Grange to read "three years in succession." The committee also asked for the correction of an imperfection in the Warner-Cramton law by making failure to renew a liquor license within three months from date of its surrender constitute an absolute surrender of the license. The Grange favored this, and also the recommendations that all highway bridges of more than 25 feet span be built by the county instead of by the township; that the killing of deer, except animals with horns, be prohibited for five years; that laws be enacted preventing the slaughter of song birds; that the conservation of birds be encouraged along with that of trees, and that Arbor Day be changed to Avis-Arbor day and that a bounty of five cents per head be placed on rats.

A plan for changing the system of electing State Master, State Secretary and the State Grange executive committee was submitted by the committee on State Grange by-laws, the plan being to elect said officers by vote of all the subordinate members of the state. After amending, to conform with the constitution, so that such vote shall constitute an advisory election rather than an election, the Grange gave its approval and instructed the executive committee to work out the details and arrange for applying the plan at the meeting of 1912.

Candidates for degrees were numerous, 95 receiving the fifth and a class of 160 taking the sixth. A new member of the executive committee is J. C. Ketcham, of Barry county, elected to succeed Jerry Lawson, of Chippewa county. F. S. Palmer, of Gratiot county, and H. F. Baker, of Cheboygan county, were re-elected.

FARMERS' CLUBS

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—J. D. Leland, Corunna.
Vice-President—D. M. Morrison, St. Johns.

Secretary-Treasurer—Mrs. C. P. Johnson, Metamora.
Directors—C. L. Wright, Caro; E. W. Woodruff, Blanchard; C. P. Johnson, Metamora; H. W. Chamberlain, White Lake; Wm. T. Hill, Carson City; Jerry Spaulding, Belding.

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.

WHAT THE LOCAL CLUBS ARE DOING.

Not the least interesting feature at the recent annual meeting of the Michigan State Association of Farmers' Clubs, was the conference of local Club workers, at which delegates from the local Clubs gave a report of the interesting features of Club work as conducted in their various organizations. The following brief items present some of the facts gleaned from the reports of different delegates regarding the conduct of their local Clubs:

Thornapple Club, of Barry county, was organized 16 years ago with 10 charter members. This Club now has a membership of 110. A notable feature of this Club, as reported by the delegates, is that both the president and his wife are college graduates.

The Riverside Club, of Shiawassee county, was organized six or seven years ago with 10 charter members. They now have a membership of 23 families to which number of families the membership is limited. The Club holds 12 meetings a year and the annual membership dues are \$1 per family, a collection being taken to meet any deficiencies in the finances which are not met by the membership fee. The Club owns its own lapboards and silverware. The Club is reported as doing good work, but the members feel that there is a greater work yet to be done for the betterment of the community.

The Indianfields Club, of Tuscola county, was organized ten years ago. The membership is limited 25 families. This Club makes an annual exhibit at the Caro fair instead of holding a separate Club fair. The Club owns several dozen camp chairs which are taken from home to home by the host and are much more convenient than borrowing sufficient chairs from neighbors. The delegate reported that the large acquaintance made throughout the farm community by the membership of the Club was considered an important benefit resulting from a membership in the organization.

The Columbia Club, of Jackson county, has a membership of 100. This Club holds 11 meetings during the year, including the fair in October. At the fair prizes are given to junior members for exhibits. Prizes are also given for baked goods and fancy work. The Club owns its own dishes and tables upon which dinners are served. Chairs are rented from the undertaker. Each family takes its own silverware. There is a good average attendance at the meetings and considerable enthusiasm in the Club work.

MEMORIAL RESOLUTIONS.

Adopted by State Association of Farmers' Clubs.

Whereas, God in His providence did, on the 22nd day of September, 1911, remove from our ranks one of our most ardent and earnest Club workers, in the death of our associational director, the Hon. Patrick Harker, it is with a sense of regret and personal loss to us, in his sudden demise. Therefore, be it resolved, that we, the State Association of Farmers' Clubs, feel keenly our loss in the death of this loyal member and we wish to express our sincere sympathy to his immediate family and to the Henrietta Center Farmers' Club of which he was a devoted member.

CLUB DISCUSSIONS.

The Rives and East Tompkins Farmers' Club met at the home of Mr. and Mrs. Wm. Jones, Dec. 3, with an attendance of 75. After an excellent dinner had been served the meeting was called to order by the president. Singing of

"America" by the Club, followed by a prayer by our chaplain. A motion was carried that we endorse the Public Welfare Association. A good literary program was rendered. Mr. Harris, overseer of the Parnell Farm, gave an interesting talk on feeding cows and the results obtained by combining the different grains and hay.—Ina Stringham, Cor. Sec.

The Wixom Farmers' Club held its December meeting at the home of Mr. and Mrs. James Bishop, in New Hudson village, and was attended by Club members and visitors to the number of 150. At the usual hour the president called the meeting to order. The New Hudson Orchestra gave us several fine selections of music. We listened to a very excellent report from our delegate, E. M. Moore, supplemented by Ex-President Holden.—Mrs. R. D. Stephens, Cor. Sec.

The Brighton Farmers' Club met Dec. 14 at the home of Mr. and Mrs. Henry Swan, with a good attendance. A good musical and literary program was rendered. It being the annual meeting officers were elected as follows for the ensuing year: President, Henry Ross; vice-president, Frank Hacker; recording secretary, Ruth Birkenstock; corresponding secretary, Mrs. Faxon Sands; treasurer, Eshon Swan; purchasing committee, Carl Birkenstock and Judd Newman. The Club adjourned to meet with Mrs. Helen Tenny the second Thursday in January.

Have Christmas Program.—The December meeting of the Columbia Farmers' Club was a most pleasant one at "Lindenhurst," the home of Mr. and Mrs. E. G. Hitt. The meeting was called to order by the secretary, Mrs. Hewitt, in the absence of the president, and Mr. Frederick was chosen as presiding officer of the day. After the delicious dinner was served the program was taken up, roll call being responded to with Christmas expressions. Miss Mae Crego told the interesting story of the origin of the Christmas tree in this country. Miss Hazel Brooks and Miss Gertrude Hitt sang most sweetly, "A Little Child Shall Lead Them." J. D. Reed opened the subject for discussion, "Conservation of our national utilities," by referring to the time when Alaska was purchased. How the deal was considered ridiculous and yet how it has proved to be such a store house for our nation; how the control of the same was centered until recently in the hands of a certain few. His idea was that the government ought not to control private enterprises as a whole, but should have some power to restrain and direct such as the mining industry, some option on the output would be a revenue that could be well effected. Others spoke with much interest on the subject, saying that many of the great enterprises had to have leaders specially fitted and educated for the same and to trust this all to the government would be putting the work into unskilled hands and untrained minds. Others said the government managed the postal department without frauds and on an economical basis. The trusts were also given some attention.

Heating the Farm Home.—Miss Belle Weeks read a paper on "Methods of Heating the Farm Home." She said discard the stove which gives an uneven, unsanitary condition in the home; install either a hot air or hot water furnace which will not only give you more comfortable rooms but a better atmosphere. They were heating nine rooms at a temperature of from 75 to 78 degrees at an expense of less than \$75 per year. In the discussion some preferred the hot water system as more reliable, others said the steam heating brought some dampness into the house. The hot air furnace has several advantages. It can be used for a light fire such as is needed in fall and spring, and can on the farm be utilized for burning up much of the waste amount of wood. No report of the state meeting was given, the delegates being absent. The January meeting will be held at the home of Mr. and Mrs. H. J. Peterson, January 13. This is the annual election of officers.

Elect New Officers.—It takes more than muddy roads and an occasional dash of rain to keep the average member of the Thornapple Farmers' Club away from the monthly meeting of the Club. A jollier crowd than that which gathered at the spacious home of Mr. and Mrs. William Gray last Friday would be hard to find. A royal good dinner added to their enjoyment. At 2 o'clock in the afternoon the meeting was called to order by President William Harper. A song by the Club was followed with a prayer by Rev. Curtis. Minutes of November meeting were read and approved. Then followed the annual election of officers with the following results: President, Howard Russell; vice-president, Rollo Adams; recording secretary, Mrs. Metta Morgan; corresponding secretary, Mrs. Mary Gray; treasurer, Mrs. Kate Cook; organist, Mrs. Clara Harper; assistant organist, Mrs. Lottie Cridler; chorister, Rev. J. H. Westbrook; chaplain, Rev. George Curtis. A short discussion of the subject, "Should a farmer and a son be partners on the farm, and how?" and interesting recitations by Mrs. Clara Harper and Mrs. Florence Adams, closed the formal meeting. A fish pond under the supervision of Mesdames Cook, Pender and Carter furnished amusement for an hour or so. Proceeds to apply on purchase price on the Club's silverware. The next meeting will be held at the home of W. R. Harper on Friday, Jan. 4, 1912, the meeting being called the "fruit meeting." Everyone invited to be present.

Have you sent in your renewal for the Michigan Farmer? If you have not better do so at once so that you will not miss any copies.



Woman and Her Needs

At Home and Elsewhere



One Kind of Forgetfulness to Cultivate.

ONCE more the season of good resolutions is upon us. For the nth time we swear off from our pet bad habit, with a firm conviction that this time we will stick to our New Year's vows. Coffee drinking, candy, swearing, slang, wine, tobacco, dress, envy, gossip, backbiting, over-eating, over-indulgence of all sorts are marshalled forth at this time each year and solemnly consigned to limbo, only to return from thence at the end of the first week in January and fasten themselves a little more firmly to their victims.

We forget. That's our excuse. We honestly meant to make a brave fight and overcome our own particular "thorn," but the flesh is weak and the memory poor. We are not constantly on guard and the word we did not mean to say slips out. Our hand steals to the candy while our mind is busy with other things and we pour and drink our cup of coffee or glass of wine subconsciously. Done once it is so easy to do again that before we are aware we are back in our old ways and our friends who have heard us vow vows before are smiling at our weakness.

Bad memory causes us to slip, we say. Then why not take our key from that when we make our resolutions this New Year? If a weak memory is our strongest characteristic, let us make it work for us. Let us compel it to make life happier and therefore better for us by causing it to forget the unpleasant things which now annoy us.

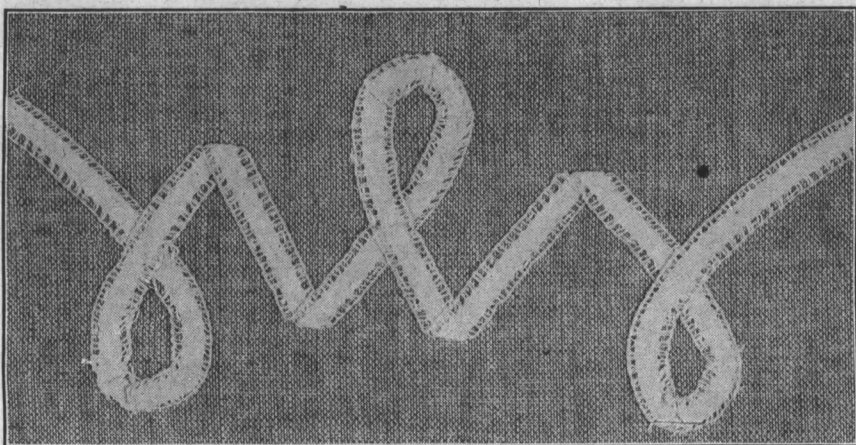
For isn't it true that the things which bother us most, which make us fretful and worried are the things which would not really hurt us at all if we did not let them? Few of us are hungry, or cold, or insufficiently clad or ill or friendless or in deep sorrow. Yet we are constantly worried about something. And simmered down, the something is usually nothing, that is, nothing which really ought to bother a healthy minded man or woman.

We are worried because Johnnie is getting round-shouldered, or we think he is going to if he doesn't sit up straight. Susie has a habit of sitting on one foot and giggling over nothing, and that irritates us. Father insists on sliding down into his easy chair when we think he ought to sit up straight. Mrs. Smith, across the way, has bought new parlor curtains and we can't have any until spring, and lucky to get them then. The neighbor on the next farm drives a new auto, while our carriage is at least three years old and nothing different in sight. The bread wasn't as good as usual, the cake didn't turn out right, and our best friend is getting chummy with another woman.

These are samples of the things women

someone else had an auto. Your parlor curtains were beautiful until you looked from your window and saw your neighbor had better ones. Well, are not your things just as good as they were before your friends bought theirs? They haven't changed a mite, the change is in you. And if you could go back to old conditions you would be as well satisfied as you were before.

Why not go back by the simple process of forgetfulness? Just call that bad memory of yours into requisition and forget



Narrow Lace Braid for Childrens' Clothes.

it. Forget that there is a soul who has more than you have, forget that the children have bad habits, they'll drop from them anyway, forget that you have been slighted, or that someone has said unkind words to you. Forget all that hurts your pride, and be thankful.

Thankful that you have a home and health and healthy children, even if they do giggle and sprawl all over the furniture. Be thankful that you have plenty of work and strength to do it, for there are many in the bread line who are as bright and ambitious and anxious to get to the top as you. Be thankful that you are alive and the world is bright, and life is sweet if you want to make it so.

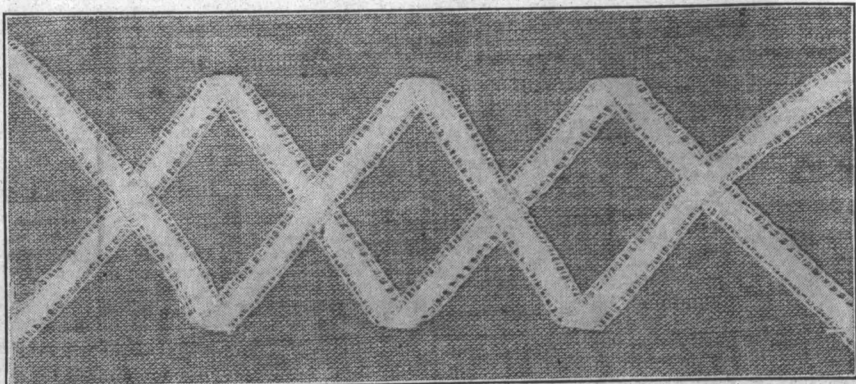
In fact, let thankfulness be the only thing you do not forget. May this be your New Year's resolution.

DEBORAH.

SEWING HINTS.

BY MAE Y. MAHAFFY.

Pockets on aprons and small boys' waists so frequently rip at the corners that any preventative is welcomed by most housewives. Try finishing the top with a bit of braid, leaving an inch or more free at either side. When the



Another Pattern.

worry about, grow gray over, and because of which they become whiners and naggers. Not one of them is of any real importance. There isn't a single thing there that could possibly hurt anyone, if she did not let it. Your old carriage was good enough for you until you found

pocket is placed on the apron or waist turn the ends of the braid upward, folding the raw edge under neatly; then when stitching the pocket into place carry the stitching right up to the end of the braid, first on one edge and then across the end and down on the other edge, making

a firm finish. Bias strips may be used in like manner.

Stitches which have been ripped out usually leave marks which it is difficult to remove. When it becomes necessary to use pieces bearing these marks hold them over the steam from a kettle, brush lightly with a clean whisk broom or stiff brush, and press in the usual manner. There is seldom any trace of the marks afterward, but if badly marked originally it may be necessary to repeat the process.

Lace braids, outlined at each side with feather stitching furnish the daintiest possible trimming for childrens' wash dresses, shirt waists, underwear and various accessories. They may be placed in

visions of the modern lover who wears near his heart a tress clipped at random from his lady's crown of glory.

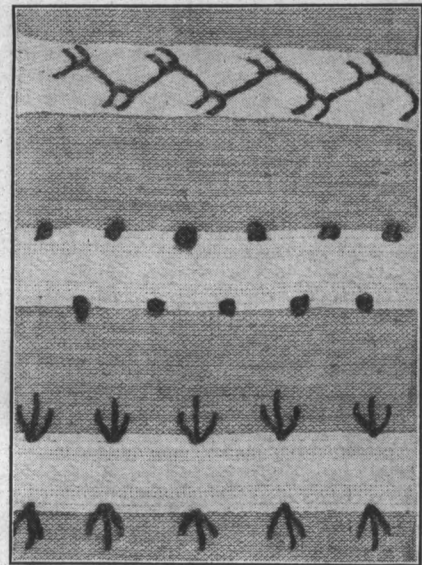
And why do women of fashion burden their heads with such masses of false hair until it would seem that the most important part of the human form, which nature has so beautifully molded, had been enlarged and distorted to grotesqueness? The custom of wearing false hair is extremely old just as is the practice of wearing artificial limbs, false teeth, glass eyes and other makeshifts of the unfortunate, but it is only recently that we have become used to seeing false hair entwined with the glossy, abundant tresses of youth.

Usually those who are forced to resort to false things to conceal or rectify physical defects, are sensitive, often morbidly so, in regard to their misfortune. Not so with the woman who, at the decree of fashion and not of fate, wears false hair. Often her elaborate coiffure is so obviously false that even blindly trusting man can not be expected to be deceived. Yet woman wears that outrage to her natural crown of glory as proudly and calmly as an innocent damsel wears a restraining ribbon on her bright tresses.

If man is supposed to be deceived his would-be deceiver, as we often learn, is beguiled instead. While traveling in a passenger coach I was greatly amused by the remarks of two young men across the aisle who were beguiling the way by sketching the heads of their fellow travelers.

"This is going to be clever," one said. "I am going to sketch the girl with a lot seaweed up here," indicating the head.

His comparison was an apt one, for the head-dress worn by his unconscious



Nos. 1, 2 and 3 numbering from top to bottom.

subject was so conspicuously artificial and so many shades lighter than her natural hair, which slightly protruded beneath the false, that it more closely resembled a cap woven of some fibrous vegetation than a woman's natural crown of glory.

MENDING SUGGESTIONS.

BY ELLA E. ROCKWOOD.

A tear in worsted goods can be successfully darned with a thread of the same fabric. Run the needle back and forth through the weave bringing the edges barely together. Fill in the stitches thickly but not crossing them, as in darning, except as may be required to hold the ends of threads in position so they will not show. When finished dampen slightly and press with a warm iron under a cloth. The place will scarcely show if the work has been carefully done.

For table linen or towels, darn back and forth, using threads of the same material. A good plan is to cut the strips cut off at the time the pieces are hemmed, as these threads match that of the

worn place and when laundered are not noticeable. Thin places should be darned before they wear entirely through, thus preventing a hole. The work may be done in an embroidery hoop if preferred.

On some goods and in some garments mending is best performed by removing the worn or torn place entirely. A pretty new plaid gingham skirt had a bad score on one of the gores near the band. All attempts at removal failed. Finally a new piece of the goods was washed to make it look exactly like that in the skirt. The scorched portion was then cut out clear across the breadth top and bottom, following a thread to ensure evenness. A new piece was cut, matching the plaid exactly and allowing for seams. The sides were then re-sewed and after being pressed with open seams the mend showed so little that the piecing could scarcely be found. A tear could be mended in the same manner.

DIET FOR NEUROSTHENIC PEOPLE.

BY ELIZABETH M. SETSON.

In all cases where nerves have got the best of people there is an excess of acid in the system. This is why rheumatism and other kidney and bladder diseases so frequently accompany neurosthenia and nervous prostration. Much of this may be removed by anti-acid diet.

The craving for fruits and highly acidulated drinks is caused by the inward fever that is brought upon the organs by the burning of the excessive amount of fermented stuff inside. It is often hard for the patient to resist the demands for satisfaction in cooling and acid drinks. Water does not seem to quench the thirst, something is lacking in it, and so the acid conditions are constantly and continuously increased by more and more acid, and the nerves are starved and suffer accordingly.

Bread and mushes, when not of a well-refined character, will set up an irritation in the tender walls of the stomach, producing sour stomach and distress more often than other things. Potatoes would be good if they were not such a tax upon the stomach in the digestion of the fibrous starch. Rice furnishes, with good rich milk, an almost ideal diet for the neurosthenic. It is anti-acid, not too heavy with hearty starch, is easily digested and assimilated almost immediately and entirely.

The reason some stomachs find it unpleasant is because it has not been washed sufficiently to get the dust off. This dust creates an irritation, sometimes immediately, often later, in digestion, causing distress. If washed until the water is clear and rubbed thoroughly through the fingers and hands, it will be all right.

Out of door exercise is good, taken in moderation, because the oxygen burns out the waste tissues and throws off the carbonic acid gas, which acid is like other acids to the neurosthenic. Every exercise should be taken in a leisurely way, so that the nerves of digestion may not lose too much in force by what is expended in muscular activity.

SHORT CUTS TO HOUSEKEEPING.

I recently saw a toy table which would make a nice Christmas gift for the children. It was made of white wood with a half-inch rim which prevented the toys from rolling off. It was high enough for the small children to sit on the floor and slip their feet under it. It was also heavy enough for a child to sit on and had four large casters so that it could be easily rolled about. This one was made especially for the nursery.—M. A. P.

Try rubbing some common baking soda on the next greasy dishes you find in your dishpan. As this is an alkali it will unite with the grease to form a soap-suds.—N. D. T.

Just set the gravy bowl in the top of the teakettle next time you want to warm any gravy over. This saves room on the stove and prevents the bowl from getting cracked.—N. D. T.

The proper beating of cake is always a laborious task, so I know this new way will prove useful to any who may try it. Place the butter where it will become soft. See that the ice cream freezer is in perfect working order. Put the eggs in the cylinder, and add the melted butter, you would for making ice cream, turn the crank a minute or two, then open the cylinder, and all the melted butter, sugar and milk. Turn the crank again for a minute, then add flour, baking-powder, and any other ingredients desired; adjust the crank and turn for ten minutes, and you will find the mixture as creamy and fine grained as though you

had beaten it with a spoon for half an hour.—Mrs. J. D.

When churning with a dash churn fold a piece of stiff paper and pin tightly around the top of the churn, letting it extend up about eight or ten inches. This will save the "spattering" on the floor.—Mrs. D. L. M.

An office stool of the proper height is useful in the kitchen when ironing, washing dishes, paring vegetables, and many other times when it is not necessary to stand and a chair is too low.—E. B.

Our mother is nearly blind from cataracts, so that it is very difficult to decipher her handwriting as the words are frequently written one over the other. Someone suggested a typewriter and now there is no more trouble about reading her letters. The clearly defined type on the keys she can easily distinguish. Learning the mechanical operation of the machine bothered her very little, although she is over eighty. Now she enjoys writing more than ever, as no one has the slightest difficulty in following her words, and it helps to pass away the time, quite an item with an elderly person.—E. E. R.

AMUSING THE CHILDREN.

Cut pictures from old magazines or catalogues and color them with crayons, which can be purchased for ten cents.

A blackboard which is easily made at home by buying a 25 cent bottle of the prepared finish and painting large strips of heavy paper, first tacking the corners firmly, will give instruction as well as entertainment.

With a bottle of paste or some flour paste, what wonderful scrap books they can make.

A box, a hammer and a few tacks will keep my small son busy and happy half a day. The outlay is small and the pleasure great for the little folks.

So many come into my house and exclaim, "Do you let your children have scissors?" "Yes, dull pointed ones."

A mechanical toy that costs five dollars will not give a child half the joy a ten-cent one may, if they can work "like papa" or "help mamma."—Mrs. E. K.

MICHIGAN FARMER PATTERNS.

These patterns may be obtained from the Michigan Farmer office at the prices named. Be sure to give pattern number and the size wanted.



No. 4047, Ladies' Shirt Waist. Seven sizes, 32 to 44 inches, bust measure. For 36 bust it requires 3 1/4 yards 27 inches wide. Price, 10 cents.

No. 5190, Children's Yoke Dress. Cut in sizes 1, 3 and 5 years. The 3-year size requires two yards of 36-inch or 1 1/4 yards of 44-inch material. Price, 10 cents.

No. 5566, Ladies' Evening Dress Having Two-piece Empire Skirt. Cut in 6 sizes, 32 to 42 inches, bust measure. Size 36 requires for dress, 5 yards of 36-inch material, and for lining, 1 1/4 yards of 26-inch goods, with 1 1/4 yards of 18-inch all-over. Price, 10 cents.

No. 5570, Ladies' Short Petticoat with or without Yoke and Ruffle. Cut in 7 sizes, 22 to 34 inches waist measure. Size 24 requires, without yoke, 2 1/4 yards of 36-inch material and with yoke, 2 3/4 yards of same width; 3 3/4 yards of embroidered edging 7 inches wide. Price, 10 cents.

No. 5590, Children's Underwaist and Bloomers. Cut in sizes, 4, 6, 8, 10 and 12 years. Age 8 requires for waist, 7/8 yards of 27-inch goods and for bloomers 2 3/4 yards of same width. Price, 10 cents.

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MARKETS

DETROIT WHOLESALE MARKETS.

December 27, 1911.

Grains and Seeds.

Wheat.—Prices declined last week largely because of the bearish condition on this continent, the receipts at Winnipeg being enormous, while those of the spring wheat states showed little signs of letting up. Weather conditions in a measure account for this selling by farmers. There is little news from abroad; the world's visible supply shows a good increase, however. The latest reports from South America are to the effect that damage has been done the crop in that section. The flour market is quiet. There will be little activity in the market during the remaining days of this year unless some unexpected news comes from Argentina to alter the effect of that country's crop upon the world's market. One year ago the price for No. 2 red wheat was 95c per bu. Quotations are as follows:

	No. 2	No. 1	May	July
Thursday	95½	93½	99½	95½
Friday	95½	93½	1.00	94½
Saturday	95½	93½	1.00	94½
Monday	95½	93½	99½	95½
Tuesday	95½	93½	99½	94½
Wednesday	96½	94½	1.00½	95½

Corn.—There was a break in No. 3 corn prices on Tuesday when the recent high figures were reduced ½c. Should the country roads improve so that deliveries can be made, it is probable that receipts will increase rapidly. This appeared to be the feature which caused traders to mark down the price since weather predictions were that a cold wave was on its way. However, the trade has been slow, very little business being transacted. The price for No. 2 corn a year ago was 53c per bu. Quotations for the past week are:

	No. 3	No. 3
	Corn	Yellow
Thursday	64	65
Friday	64	65
Saturday	64	65
Monday	64	65
Tuesday	63½	65
Wednesday	63½	65

Oats.—The desire to have as little grain on hand as possible over the lifeless holiday season caused all who had more than enough to supply present demands, to sell or offer their surplus. This resulted in a slight reduction of prices on Tuesday. There was, however, little business done. One year ago the price for standard oats was 35c per bu. Quotations are as follows:

	Standard	No. 3
		White
Thursday	51	50½
Friday	51	50½
Saturday	51	50½
Monday	51	50½
Tuesday	50	49½
Wednesday	50	49½

Beans.—There has been a light run of business in bean circles the past few days. Prices are ruling at the closing figures of a week ago. Farmers are not offering their beans liberally. They seemingly are of the opinion that the crop has been greatly shortened by the large amount of beans that could not be harvested. Quotations for the week are as follows:

	Cash	Jan.
Thursday	\$2.25	\$2.30
Friday	2.25	2.30
Saturday	2.25	2.30
Monday	2.25	2.30
Tuesday	2.25	2.30
Wednesday	2.27	2.32

Clover Seed.—This market is steady with only a small amount of business being done. Prices for common seed rule 10c below the quotations of a week ago in both prime spot and March. Alsike is steady. Quotations are as follows:

	Prime Spot	March	Alsike
Thursday	\$12.40	\$12.40	\$10.50
Friday	12.40	12.40	10.50
Saturday	12.40	12.40	10.50
Monday	12.40	12.40	10.50
Tuesday	12.40	12.40	10.50
Wednesday	12.40	12.40	10.50

Timothy Seed.—This seed is unchanged and nominally quoted at \$7.20 per bu.

Rye.—Market rules dull with cash No. 2 selling at 94c per bu.

Flour, Feed, Potatoes, Etc.

Flour.—There is a light demand for flour, with prices unchanged.

Patent Michigan \$4.10
Ordinary Patent 4.75

Feed.—All grades steady with last week. Carlot prices on track are: Bran, \$27 per ton; coarse middlings, \$29; fine middlings, \$32; cracked corn, \$30; coarse corn meal, \$30; corn and oat chop, \$28 per ton.

Hay and Straw.—Prices and market conditions are steady. Quotations are: No. 1 timothy, \$20@21; No. 2 timothy, \$19@20; clover, mixed, \$18.50@20; rye straw, \$9.50@10; wheat and oat straw, \$9 per ton.

Potatoes.—Last week's prices are sustained. About enough offerings are made to keep the trade steady. Car lots on track are quoted at 85@90c per bushel.

Provisions.—Family pork, \$17.50@20; mess pork, \$16.50; medium clear, \$16@17.50; hams, 13½c; bacon, 12@14c; pure lard in tierces, 9½c; kettle rendered lard, 10½c per lb.

Dairy and Poultry Products.

Butter.—An advance in the Elgin quotations resulted in better prices on the local markets for creamery goods, the advance being 1c. A limited supply and a fair demand caused the advance. Quotations are: Extra creamery, 36c; first creamery, 35c; dairy, 21c; packing stock 20c per lb.

Eggs.—The mild weather has resulted in an increase in the supply of fresh eggs which accounts for the decline of 4c per

dozen on the local market, the quotations at present being 28c per dozen for current receipts, cases included.

Poultry.—A large quantity of chickens has been left over from the Christmas trading which gives that department a dull undertone. Other kinds rule about steady with former prices, except dressed turkeys and geese are higher. Quotations are: Live—Turkeys, 16@17c; geese, 11@12c; ducks, 14c; young ducks, 15c; spring chickens, 10@11c; No. 2 chickens, 8c per lb; hens, 8½@9c. Dressed—Chickens 10@11c; hens, 8@9c; ducks, 16@17c; geese 13@14c; turkeys, 18@20c.

Cheese.—Michigan, old, 15½@17c; Michigan, late, 15½@17c; York state, new, 16@17c; Swiss, domestic block, 17@20c; cream brick, 15@16c; Limburger, 14@15c.

Veal.—Market lower for fancy. Fancy, 10c, choice, 8@9c per lb.

Dressed Hogs.—Light, \$7.25; medium, \$7; heavy, \$6.50 per cwt.

Fruits and Vegetables.

Cabbage.—Steady. Selling at \$1.75@2 per bbl, for home-grown.

Onions.—Steady at 95c@1 per bu.

Apples.—Baldwins and Greenings, \$2.75@3; Spy, \$3@3.50; Ben Davis, \$2@2.50; Snows, \$3.50@4 per bbl.

OTHER MARKETS.

Grand Rapids.

Prices bid for live poultry this week are as follows: Fowls, 9c; ducks, 12c; geese, 10c; turkeys, 15c. Dealers in dairy products are paying 28c for dairy butter and 30c for eggs. Dressed hogs are worth around 7½c. The city market reports hay selling at \$18@20. Beans are looking better, with quotations for white pea on \$1.90 basis, red kidneys \$2.25. No change is reported in the potato market, the price offered at outside loading stations being around 65c.

Chicago.

Wheat.—No. 2 red, 94½@96½c; May, 97½c; July, 93½c.

Corn.—No. 3, 61½@62c; May, 63½c; July, 63½c per bu.

Oats.—No. 2 white, 46½@47½c; May, 46½c; July, 43c per bu.

Barley.—Malt grades, \$1.12@1.25 per bu; feeding, 80@95c.

Butter.—The better grades of creamery are up 1c; dairy goods unchanged. The market is firm. Creameries, 26@36c; dairies, 23@31c.

Eggs.—Heavy receipts and mild weather are held responsible for the big drop in values since a week ago. Colder weather on Tuesday of this week, however, gave the market a firmer tone. Quotations are: Firsts, grading 45 per cent fresh, 26@27c; ordinary firsts, 22@24c; at mark, cases included, 17@26c per dozen.

Potatoes.—The recent decline in values brought a corresponding drop in receipts. The demand, however, has continued sufficiently active to force good advances since this time last week. Michigan stock is now quoted at 88@90c per bu; Wisconsin, 85@88c; Minnesota, 88@90c.

Beans.—Good stock scarce and all kinds have made a good advance. Choice hand-picked pea beans quoted at \$2.48 per bu; prime, \$2.41; red kidneys, \$3 per bu.

Hay and Straw.—Hay steady to firm; rye straw lower. Quotations: Choice timothy, \$22@23 ton; do., No. 1, \$20.50@21.50; do., No. 2 and No. 1 mixed, \$19@19.50; do., No. 3 and No. 2 mixed, \$14@18; clover, \$15@17; do., No. 2 and no grade, \$7@13; rye straw, \$9@10; oat straw, \$8@10 per ton; wheat straw, \$8@9 per ton.

Apples.—Market about steady with a week ago. The offerings are selling from \$2@4 per bbl, according to kind and quality.

New York.

Butter.—Prices have suffered no change and trading goes on with a firm tone. Creamery specials are quoted at 38c per lb; extras, 37c; firsts, 34@36c; seconds, 31@33c.

Eggs.—Prices took a decided plunge last week, the figures in some instances going down 10c below those for the same grade a week ago. The increase in supplies due to the mild weather has worked the change. Fresh gathered extras, 34@35c; extra firsts, 31@32c; seconds, 27@28c; western gathered whites, 33@38c per dozen.

Poultry.—Market unsettled. Western chickens, 10@10½c; fowls, 13@13½c; turkeys, 14c. Dressed—Irregular. Turkeys, 12@18c; fowls, 5@16c; western chickens, 15@16c per lb.

Boston.

Wool.—Business has been heavy the past week. Buyers do not anticipate that prices for the 1911 clip will drop below the present quotations. There exists a healthy demand for Ohio fleeces, but the call for Michigan goods has fallen off during the past few days. Territory wools appear to be selling better than a month ago. Following are the leading quotations for domestic fleeces: Ohio and Pennsylvania fleeces—Delaine washed, 31c; XX, 28c; ½-blood combing, 26c; ¾-blood combing, 25½c; fine unwashed, 21c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 20c; delaine unwashed, 23c; ½-blood unwashed, 25@25½c. Kentucky, Indiana and Missouri—¾-blood, 24c; ½-blood, 24c.

Elgin.

Butter.—Market firm at 36c per lb., which is an advance of 1 cent over last week's quotation. Output for the week, 620,120 lbs., compared with 624,700 lbs. a week ago.

THE LIVE STOCK MARKETS.

Buffalo.

December 26, 1911.

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

Cattle receipts, five cars; steady. Hog receipts, 30 cars; steady. Heavy, \$6.40@6.50; yorkers, \$6.40@6.45; pigs, \$6.35. Sheep and lambs, receipts 30 cars; steady. Top lambs, \$6.35; yearlings, \$4.50@5; wethers, \$3.75@4; ewes, \$3.25@3.50. Calves \$5@9.25.

Chicago.

December 25, 1911.

This is Christmas, one of the three holidays of the year strictly observed at the stock yards, the other two being Thanksgiving and the Fourth of July. Live stock that arrives is yarded and cared for, but no sales are made.

Cattle prices underwent frequent fluctuations last week on account of the great variation in the supplies, 31,851 head arriving Monday, while the run for Wednesday was only 14,131 head. Before the Monday market closed cattle were selling anywhere from 10@25c lower than on the preceding Saturday, but the decline was recovered two days later, while the meager Thursday offerings brought about a further improvement of a dime in prime beefs, which were so scarce that the packers were unable to fill their orders. On that day they managed to even up things, however, by forcing prices 10@15c lower for a large part of the common and middling class of steers. The bulk of the steers sold during the week went at \$5.50@7.50, with inferior to fair light weight steers going at \$4.60@5.75, medium grade cattle between \$6 and \$7, good steers at \$7@7.50 and choice to fancy beefs at \$7.60@9, transactions at \$8 and upward cutting very little figure, as there were not much offering of the best class of cattle. Cows and heifers had a more reliable outlet than steers, butchering lots going at \$3.35@6.65. Canners sold at \$1.75@2.75, cutters at \$2.80@3.30 and bulls at \$3@5.50. Calves had such an unusually small demand that prices suffered a big decline, the better class of light-weight vealers going at \$6.50@7.50, with sales all the way down to \$3@4 for coarse, heavy weights. There was a moderate trade in stockers and feeders, with killers competing for the better class of heavy feeding steers and securing the larger share. Stockers went at \$3.25@5.15 and feeders at \$4.65@6, with not much doing above \$5.50 and many buyers refusing to pay over \$5.25. Walkers and springers were about as dull as could be imagined at \$30@60 per head, being \$5@10 lower than a short time ago.

Hogs were marketed last week very much more liberally than a week earlier, and the large offerings caused considerable weakness in prices, although less than might have been expected. Usually there was a good demand, and eastern shippers stood ready, as a rule, to purchase the small percentage of choice barrows of strong weights, as well as the best lighter weights that averaged around 190 to 200 lbs. Of late the receipts have been averaging in weight only 213 lbs., which is certainly a low average, even if it is 10 lbs. above the lowest time of the season, several weeks ago, when the marketing of sick pigs was at its height. A year ago hogs averaged 224 lbs., two years ago 218 lbs. and three years ago 210 lbs. There is no longer much hog cholera, according to late reports, but many stockmen persist in marketing light weight young hogs in order to save their high-priced corn. Hogs have been selling at \$5.65@6.15 for light weights and at \$6.15@6.30 for heavier lots, with pigs going at \$4.50@5.70, stags at \$6.25@6.40 and boars at \$2@3. It is expected by the best judges that it will pay farmers with sufficient feed to produce fat beefs, hogs and live muttons.

Sheep and lambs were marketed last week in very much smaller numbers than a week previous, and a normal general demand caused good advances in prices for desirable offerings, fat lambs being the great favorites and leading off in the upward movement. Lambs sold at \$3.50@4.50 for the poorest lots and at \$5.50@6.40 for fair to prime, but not many were fancy enough to sell above \$6.30. Yearlings were good sellers at \$4.65@5.50, light ones on the lamb order selling highest and heavy ones selling at a large discount. Wethers sold at \$3.60@4.25, ewes at \$2@3.65 and bucks at \$2.25@2.75.

Horses were marketed too liberally last week, at least so far as common and medium grades were concerned, these meeting with a very dragging demand and selling at weak to lower prices. Such demand as there was centered on choice heavy drafters, there being a small attendance of buyers. The lowest class sold on a basis of \$65@125 per head, with chunks that weighed 1,250 to 1,450 lbs. salable at \$150 to \$200, and light drafters weighing 1,550 to 1,650 lbs. were salable at \$175 to \$225, and heavier ones were salable at \$230@300 and upward, prime extra heavy drafters selling as high as ever. There was a demand for high-class expressors for eastern shipment at \$350 and upward, with such offerings scarce.

LIVE STOCK NOTES.

Petri, of St. Louis, who is bullish on corn, makes the point that granting that three million hogs died from cholera, which he thinks is a most liberal estimate, this loss is largely offset by the big crop of spring pigs which were saved. He figures that it takes ten bushels of corn to fatten a hog, or thirty million bushels of corn saved on account of hog cholera, which is only a drop in the bucket when it is taken into account that 200,000,000 to 300,000,000 bushels of the corn crop of 1911 is so rotten that it cannot be used.

The first appearance of genuine winter weather may always be depended upon to start up a lively movement of cattle, hogs and sheep to market, for there are many farmers who do not care to winter their stock, and this movement is greatly accelerated when feed is much higher in price than usual, as it happens to be this winter. The recent snow storm in the middle west brought out a big Monday supply of live stock, the run of cattle being made up very largely of short-fed and warmed-up steers and thin cows. Of course, prices weakened all along the line, except for prime beefs, which are

no longer plentiful, the best having been sent to the International Live Stock Exposition or else sent in for the Christmas holiday market.

It is now generally admitted that the short-feed districts have marketed most of their light-weight cattle that are not intended for finishing, and smaller offerings of light stockers are seen in the Chicago and other western markets. Many farmers who have plenty of rough feed are letting their thin light cattle have the run of their stalk fields and get a cheap growth in this manner.

The eastern shortage of feed has caused farmers living in that part of the country to go slow in buying stocker and feeder cattle in the Chicago market recently, and the largest demand has come from the territory immediately surrounding Chicago. Numerous buyers have been taking cattle out with the plan of giving them a feed lasting three months, as they figure that by the end of that period there is bound to be a decided shortage of a medium to good class of killing steers.

The action of the British war office in declining to accept bids from the indicted Chicago packers until the government trial was over is a serious blow to the canned beef trade, that being the kind of beef mostly taken, and it will prove a weakening factor in the market for canned cattle. The packer outlet for canned beef is very largely on export account, with England a particularly large buyer.

It is a great pity that there are so many stock feeders who have arrived at the conclusion that it will not pay to fatten their pigs and thrifty, growing young hogs until they reach full maturity. True, feed is dear, but it is almost a certainty that producing reasonably heavy swine will prove to be a paying policy in the end. It is easy to see that the enormous marketings of sick pigs and healthy pigs this season by farmers who were panic-stricken is going to tell later on in curtailing the hog supply, and there is no question about the same result being the inevitable consequence of the present heavy selling of light-weight hogs. Prime heavy hogs are scarce articles and much sought after by butchers, who willingly pay a liberal premium in order to secure a fair quota.

The recent course of the sheep and lamb market has been irregular, with frequent upward and downward movements, depending upon the volume of the marketings. Prime lambs of medium weights have all along sold much the best, prices ruling as high at times as \$6.25 per 100 lbs. and as low as at other times at \$6. Most people want lambs, although light-weight yearlings are apt to be good sellers.

Much valuable information was gathered by stockmen who attended the recent International Live Stock Exposition at Chicago regarding improved methods of fattening live stock, and the various methods employed have been published by the various farm papers of the country. The prize winning feeders cattle exhibited there were purchased by an Illinois stock feeder, the lot consisting of 20 head of Hereford steers that averaged 924 lbs., and sold for \$6.10 per 100 lbs. They were exhibited by a Nebraska breeder, who this year sold 237 bulls to ship to Colorado, the two Dakotas, Montana and western Nebraska.

Dairy products are still selling unusually high, butter prices having been advanced again after a temporary decline. Eggs have been selling in Minneapolis as high as 50 cents a dozen for lots passing as strictly fresh, being the highest ever paid in that city, while storage eggs have been retailing there for 45 cents. At the recent annual election of the Elgin Board of Trade the insurgents carried the day, and one of the leaders made the statement that the election meant that the price committee of five men which fixes the butter quotations and reports to the board will be abolished, as it is in direct violation of the Sherman anti-trust law. He said the organization is from now on to be a board of trade in fact as well as in name, and creamery men who desire to sell butter will go there and sell. Those desirous of buying will go there and buy, and prices will be established in this manner.

The two-year-old Shorthorn winners of several prizes at the recent International stock show that numbered 15 head and averaged 1,382 lbs. brought at the auction \$11.50 per 100 lbs. J. G. Imboden, of Illinois, was the feeder and exhibitor. He bought them at the International a year earlier as feeders, from S. B. Burnett, of Texas, a prominent southwestern ranchman, who makes a specialty of breeding Hereford and Shorthorn cattle. Mr. Imboden stated that the cattle weighed 650 lbs. when taken back to the feed lot from the 1910 International and that they put on a gain of around 750 lbs. They had been on full feed since January last. Early in the feeding period the leading ration was ground corn, cob and all, a little oil cake added. During the last four months oats, ground corn and oil cake was the principal ration. The roughage consisted of shocked corn and fodder, with a very little oat straw. The cattle had no grass after July 1 and previous to that all told there were 40 head on seven acres, with the grass very poor at that. During May and June they made an average gain of 140 lbs., and during July and August, when they were taken off grass, 166 lbs. As will be seen, the biggest gain was made without grass. Mr. Imboden remarked that owing to the high price of choice fat cattle this year the gain more than offset the increased cost because of absence of grass, but added that under normal feeding conditions this method would not pay.

In a recent week a Pennsylvania man purchased in the Chicago market a car load of milk cows for under \$55 per head. Prime Holstein cows are bringing \$65 to \$75.

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 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.

December 28, 1911.

Receipts, 550. Market 15@25c higher than the close last Friday; strong at last Thursday's prices.

We quote: Best steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5.50@6; do. 800 to 1,000, \$4.75@5.40; do that are fat, 500 to 700, \$4@4.50; choice fat cows, \$4@4.50; good fat cows, \$3.50@3.75; common cows, \$3@3.25; canners, \$2.50@2.75; choice heavy bulls, \$4@4.50; fair to good bolognas, bulls, \$3.75@4; stock bulls, \$3@3.50; milkers, large, young, medium age, \$4@5.00; common milkers, \$2.50@3.00. Extra fancy cows \$5.50@6.00.

Bishop, B. & H. sold Kamman 3 butchers av 993 at \$4.50, 6 do av 773 at \$4.10, 2 do av 640 at \$3.50; to Bresnahan 1 cow weighing 660 at \$3, 8 do av 855 at \$2.60, 1 do weighing 750 at \$2, 1 do weighing 830 at \$3, 1 heifer weighing 680 at \$4, 3 butchers av 743 at \$3.30, 1 bull weighing 550 at \$3.25, 7 stockers av 676 at \$3.90, 3 cows av 1,007 at \$3; to Hammond, S. & Co. 2 do av 970 at \$3, 2 do av 910 at \$3.75, 1 bull weighing 1,690 at \$4.50, 1 do weighing 1,200 at \$4, 5 cows av 920 at \$2.95, 1 do weighing 770 at \$2.50, 3 do av 923 at \$3; to Newton B. Co. 16 steers av 1,060 at \$5.60, 1 cow weighing 1,220 at \$4, 1 do weighing 1,120 at \$3, 20 steers av 1,050 at \$5.50, to Rattkowsky 3 cows av 1,227 at \$4, 1 bull weighing 920 at \$3.50, 1 do weighing 1,620 at \$4.40; to Goose 3 cows av 937 at \$3.50, 1 bull weighing 960 at \$4.25, to Marx 1 bull weighing 880 at \$4, 4 butchers av 777 at \$4, 1 cow weighing 830 at \$3.25; to Goose 8 cows av 982 at \$3.25; to Sullivan P. Co. 1 steer weighing 1,070 at \$5.50, 3 cows av 893 at \$3.25, 3 steers av 777 at \$4.75; to Hammond S. & Co. 5 cows av 906 at \$3; to Fromm 7 butchers av 761 at \$4.35; to Bresnahan 1 bull weighing 1,440 at \$4.50, 1 cow weighing 910 at \$2.75.

Spicer & R. sold Bresnahan 3 cows av 826 at \$2.60, 3 canners av 877 at \$2.85, 1 cow weighing 800 at \$3, 2 do av 735 at \$2.85, 1 do weighing 1,180 at \$3; to Newton B. Co. 1 steer weighing 900 at \$4, 1 heifer weighing 830 at \$3; to Mich. B. Co. 1 cow weighing 1,080 at \$4, 2 steers av 1,020 at \$5.25, 1 heifer weighing 380 at \$3.50, 7 steers av 774 at \$4.70, 10 do av 985 at \$5.40, 8 do av 711 at \$4.70, 11 do av 660 at \$4.05; to Breitenbeck 25 do av 876 at \$5.25; to Rattkowsky 1 cow weighing 850 at \$3.75, 3 do av 1,000 at \$4; to Goose 4 butchers av 705 at \$3.70; to Lachalt 17 do av 887 at \$4.70; to Marx 15 do av 810 at \$4.70; to Hirschleman 15 do av 903 at \$4.70; to Newton B. Co. 14 do av 728 at \$4, 27 do av 905 at \$4.60, 33 do av 800 at \$4.60, 27 do av 833 at \$4.60.

Veal Calves.

Receipts, 273. Good grades 50@75c higher; common steady. Best, \$8@9; others, \$4@7.50; milch cows and springers steady.

Spicer & R. sold Sullivan P. Co. 2 av 145 at \$8.50, 1 weighing 100 at \$8, 4 av 140 at \$8.50; to Mich. B. Co. 6 av 120 at \$8.25, 5 av 145 at \$8, 4 av 110 at \$8.25; to Sullivan P. Co. 12 av 130 at \$8; to Burnstone 1 weighing 300 at \$4.75, 3 av 150 at \$8.50, 12 av 150 at \$8.50, 4 av 135 at \$3, 6 av 125 at \$8.75, 9 av 140 at \$8.75, 4 av 155 at \$9.

Bishop, B. & H. sold Parker, W. & Co. 1 weighing 140 at \$8, 2 av 195 at \$8.75, 2 av 125 at \$7, 1 weighing 230 at \$4; to Sullivan P. Co. 3 av 150 at \$8.25, 4 av 105 at \$6.25, 7 av 135 at \$8; to Rattkowsky 1 weighing 280 at \$4; to Mich. P. Co. 11 av 140 at \$8, 1 weighing 130 at \$8.50; to Rattkowsky 4 av 150 at \$6.25; to Goose 10 av 128 at \$8, 9 av 150 at \$8; to McGuire 5 av 160 at \$9, 5 av 165 at \$9; to Goose 2 av 110 at \$7.

Sheep and Lambs.

Receipts, 2,722. Market 25c higher than Wednesday or last week on lambs; sheep steady. Best lambs, \$6@6.50; fair lambs, \$5.50@5.75; light to common lambs, \$4@4.75, fair to good sheep, \$2.75@3.25; culls and common, \$1.50@2.50.

Spicer & R. sold Thompson Bros. 21 sheep av 85 at \$3, 34 lambs av 57 at \$5.25, 29 do av 60 at \$5.35; to Sullivan P. Co. 154 do av 82 at \$5.10, 16 do av 85 at \$6.15, 33 do av 80 at \$6.15, 5 sheep av 100 at \$2.25, 29 sheep av 75 at \$3.25; to Goose 10 do av 147 at \$3.35; to Mich. B. Co. 37 do av 135 at \$3.25, 22 do av 95 at \$2.65.

Haley & M. sold Mich. B. Co. 48 sheep av 85 at \$3, 37 lambs av 63 at \$5.50; to Parker, W. & Co. 75 do av 73 at \$5.75.

Bishop, B. & H. sold Sullivan P. Co. 16 sheep av 80 at \$3, 4 do av 120 at \$2.75, 20 lambs av 50 at \$4; to Parker, W. & Co. 48 do av 65 at \$5.50, 69 do av 75 at \$5.65, 32 do av 50 at \$4.50, 98 do av 85 at \$6.50, 2 sheep av 95 at \$2; to Barlage 35 lambs av 50 at \$4.75, 21 do av 50 at \$5, 59 sheep av 95 at \$3; to Bray 4 do av 135 at \$3, 2 do av 200 at \$2.50, 22 lambs av 83 at \$6.25; to Barlage 18 do av 70 at \$6.25, 49 sheep av 90 at \$3.25; to Hayes 17 lambs av 55 at \$4.50, 17 do av 65 at \$4.50; to Parker, W. & Co. 5 sheep av 105 at \$3, 20 lambs av 63 at \$5.75, 85 do av 75 at \$6, 15 do av 60 at \$5; to Young 46 do av 70 at \$6, 25 do av 75 at \$6, 26 do av 70 at \$5.60; to Fitzpatrick Bros. 85 do av 65 at \$6.

Hogs.

Receipts, 2,374. Market 10@15c higher than last week. None sold up to noon; packers bidding as follows:

Range of prices: Light to good butch-

ers, \$6.10@6.25; pigs, \$5.90@6; light yorkers, \$5.90@6.10; stags one-third off. Bishop, B. & H. sold Parker, W. & Co. 1,290 av 190 at \$6.25, 330 av 170 at \$6.20. Spicer & R. sold Hammond, S. & Co. 450 av 200 at \$6.25, 255 av 175 at \$6.20. Haley & M. sold same 203 av 210 at \$6.25, 78 av 170 at \$6.20, 155 av 160 at \$6.10.

Friday's Market.

December 22, 1911.

Cattle.

Receipts this week, 1,281; last week, 1,487. Canners and bulls steady; all others 15@25c lower than on Thursday.

We quote: Dry-fed steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5@5.75; do. 800 to 1,000, \$4@5; do. that are fat, 500 to 700, \$3.50@4; choice fat cows, \$4@4.25; good fat cows, \$3.50@3.75; common cows, \$2.75@3.25; canners, \$1.75@2.75; choice heavy bulls, \$3.75@4.25; fair to good bolognas, bulls, \$3@3.50; stock bulls, \$2.75@3.25; choice feeding steers, 800 to 1,000, \$4.50@4.75; fair feeding steers 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.75@4.25; fair do. 500 to 700, \$3@3.50; stock heifers, \$2.75@3.25; milkers, large, young, medium age, \$4@5.00; common milkers, \$2@3.00.

Sheep and Lambs.

Receipts this week, 10,156; last week, 6,450. Market, quality considered, steady with Thursday. Best lambs, \$5.75@5; fair lambs, \$4.75@5.50; light to common lambs, \$3.50@4.50; fair to good sheep, \$2.75@3; culls and common, \$1.75@2.75.

Hogs.

Receipts this week, 9,368; last week, 8,341. Market 5@10c lower; only one packer in market. Range of prices: Light to good butchers, \$6; pigs, \$5.50@5.60; light yorkers, \$5.75@5.85; stags one-third off.

ADDITIONAL VETERINARY.

Indigestion.—I have a cow that calved last July, was in fine order then, weather hot and dry, pasture short; she lost flesh and has never picked up much. Her hair is rough, she slavers some and is not in a thrifty condition. D. R. K., Rapid City, Mich.—Give her 1 oz. ground gentian, 1 oz. ginger and 2 drs. ground nuxvomica at a dose in feed three times a day.

Barren Twin Heifer.—Have a valuable Holstein heifer that has never been in heat. She is a twin calf, her mate being a male. She is now 20 months old and worth \$200 if she would breed. A. B., Wayland, Mich.—A heifer calf having a male mate seldom, if ever, breeds, and I should say your heifer will prove barren.

Pigs Have Fits.—I have a bunch of 20 pigs; they are nearly three months old and four of them have been troubled with fits. They come out of their nest seemingly all right until they begin to eat and just as soon as they attempt to eat it causes them to have one of these fits. Soon as they recover from the effects of it they re-appear at trough and commence eating as though nothing had happened. One of the four has died. From the time these pigs were weaned they were confined on a cement floor until Dec. 5, then they were turned out. These pigs have had a change of feed from beginning, some barley meal, some corn and a liberal quantity of milk. I have treated two of the pigs by giving 15 drops of carbolic acid in a quart of sweet milk to each and it has proved to be a remedy. A neighbor had three sick pigs that had fits. Two of them died, the other got well. I have talked with our Vet. and he is unable to throw any light on the subject. W. E. B., Davison, Mich.—Choking convulsive fits such as young pigs often suffer from, following immediately after commencing to eat or drink cold food or swill indicates choking, or a portion of food or water or milk going down windpipe, causing bronchial irritation and great distress, for a few minutes. Other pigs choke and during their struggle the food is swallowed or ejected, giving the animal relief; in other cases you will find the larynx and pharynx of throat are affected by spasm which continues from one to ten minutes. Death may result before the throat relaxes. Feeding warm food and tepid water is a preventative. Your pigs may be wormy; however, I hardly believe bowel parasites the cause of their trouble. Give ten drops spirits of camphor in a tablespoonful or two of warm water and it will generally relieve spasm of throat, or apply a hot pack to throat.

LIVE STOCK NOTES.

After New Year's a more reliable demand for beef cattle is expected, for by that time most people are surfeited with turkey and other poultry and are ready to return to beef, mutton and pork. In the firm belief of the best judges, it will pay farmers who are well provided with feed to make their well-bred cattle good and fat, since there is much less cattle feeding being carried on in the country than usual. It seems a great pity that so many men have failed to recognize this and have sacrificed their partly fattened stock.

The recent course of the hog market has been in a downward direction, although the decline has been rather slow as a general rule, the hogs being all wanted. A difference of opinion prevails as to the supply of hogs available for marketing in feeding districts, but the best authorities do not think there will be any over-supply. Cured hog meats, including such staples as bacon and hams, are having a good sale, and exports to other countries have been running far ahead of a year ago, with prices ruling much lower than at that time. Fresh pork, too, partly because of its cheapness as compared with other meats, is having an extremely large consumption throughout the country, the pigs being especially valuable for converting into fresh meats.

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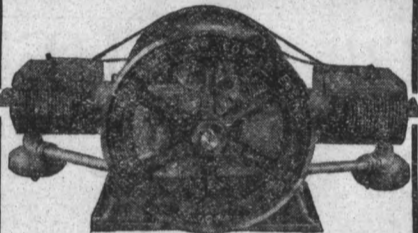
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HOME AND YOUTH

GOOD-BYE, OLD YEAR.

BY MILDRED M. NORTH.

Good-bye, Old Year! We've had joys and tears,
And happy hours, and hopes and fears;
Our hearts have beat with joy most sweet,
And our hearts have ached, for the joy was fleet,
And our hearts have bled
When our hopes lay dead—
Good-bye, Old Year, good-bye.

Good-bye, Old Year! We've been glad and sad,
And sorry and merry times we've had;
We've done our best and we'll leave the rest,
And pray for strength for the trials unguessed;
We'll put by our woes
And with brave hearts go.
Good-bye, Old Year, good-bye.

THE AFFECTION FOR HOME.

BY R. BRAUNSTEIN.

When we get to the roots of human society, we find it began with two persons, one man and one woman. From that grew the family, the nation and the race. The story of Eden with its peace and beauty, is only the setting of that picture of mutual love which age repeats to age and which never loses its charm. Says Michelet, "Society is founded on the family institution, and the family institution on love; hence love precedes all." That mysterious something in another which attracts, holds—fuses all desire, all hope, all ambition, all purpose into one dominant emotion—is the intensest form the affections assume. This has been the inspiration of many of the noblest works of genius. Artists, musicians, poets, have wrought under its spell. Their best poems, their best music, their noblest creations have arisen at its command. Michael Angelo called out of the marble, forms of imperishable beauty and flung on the ceiling of the Sistine chapel the sublimest conceptions inspired by the thought of Vittoria Colonna. Raphael's Madonnas are but the reflections of La Fornarina's beauty, which kindled in his soul an undying flame. Bach wrote his harmonious chorals and his wonderful passion music which seems to vibrate with the love and grief of the Man of Sorrows, inspired by the love and appreciation of his wife Magdalena. Schumann's exquisite songs, dreamy as an autumn twilight or passionate as a mid-summer day, are but echoes of love of his Clara, the wife of his youth. The stately melodies of Mendelssohn and his weird "Songs Without Words," are the harmonious expression of his love for Cecilia, his first and last love; and Beethoven's symphonies breathe the aspirations of the master's soul, mingling with the anguish of his love, which, although unrealized, kept him pure amid a thousand temptations. Dante's "Divine Comedy" represents a sinner saved by his love, a life of disorder purified by a memory and a regret. It is the lost Beatrice who is his guiding star, leading him from dissoluteness to purity, out of stormfulness into peace—Beatrice who kindled into the great Florentine's soul a love so pure and purifying that Carlyle says of it, "I know not an affection as equal to Dante's. It is a tenderness, a trembling, longing, pitying love, like the wall of a child's heart; one likens it to the song of angels; it is among the purest utterances of human affections, perhaps the very purest that came out of a human soul."

Byron touches the heart in his poem, "The Dream," as in no other of his works, and the reason is, it was inspired by the memory of the only pure affection that relieved the darkness of his life, for to him it was indeed a sweet dream, and like all dreams, soon passed away, leaving only a memory; and Burns never sings more sweetly than when thinking of his "Mary in Heaven."

It is this mutual affection, pure, strong, true, which must be the cornerstone of the home. When two young people love each other and marry they restore the picture of the apostolic church. They are of one heart and soul; neither do they say that anything they possess is their own, but they have all things in common. Their mutual trust in each other draws out all that is best in both. Love is the angel who rolls away the stone from the grave in which we bury our better nature, and it comes forth. Love makes all things new; makes a new heaven and a new earth; makes all pain light and burdens easy to carry. Its story

never grows old. Romance and poetry weave it year after year into song and story and the world never grows weary of singing and reading it. Men and women throng a church to see a wedding because of the subtle sympathy all feel with young hearts in their love and hope of a happy home. As has been said, "The whole world loves a lover."

Oh, the beauty, the talismanic charm of that word "home." It sweeps all the finest chords of our being with a master's hand. More people turn again and again to the story of the Prodigal Son and of the home of Bethany than to any other scene in the life of the Great Teacher. The touch of the home in them makes all hearts respond to their sweetness. Home means something more than a house or a dormitory. Many men use it as a sleeping place, where they may recruit their exhausted forces, like an engine run into a repair shop to be oiled up and overhauled for the next day's work. Home should be the shrine of love, a place of refuge from the wintry storm and tempest of life. Home should be the oasis in the desert of the world. The true home is founded upon affection and cemented by unselfishness, for love only is the consoler of sorrow, the strengthener of weakness, the sustainer of hope, the safeguard to the tempted, the relief to the fallen. It is not necessary to have a big bank account to make such a home. It is not essential to happiness that one should start life in a palace.

The lowliest rooms may be made a palace beautiful. There is sweet truth in the old lines, with which most of us are familiar:

"Mrs. Lofty keeps a carriage
So do I;
She has dapple grays to draw it,
None have I;
With my blue-eyed laughing baby
Trundling by,
I hide his face, lest she should see
The cherub boy and envy me.

"Her fine husband has white fingers,
Mine has not;
He could give his bride a palace,
Mine a cot;
Her's comes home beneath the starlight,
Ne'er cares she;
Mine comes in the purple twilight,
Kisses me,
And prays that He who turns life's sands
Will hold his loved ones in His hands.

"Mrs. Lofty has her jewels,
So have I;
She wears her's upon her bosom,
Inside I;
She will leave her's at death's portal
By and by;
I shall bear my treasure with me
When I die,
For I have love and she has gold,
She has wealth, mine can't be told.

"She has those who love her station,
None have I;
But I've one true heart beside me,
Glad am I;
I'd not change it for a kingdom,
No, not I;
God will weigh it in the balance
By and by,
And then the difference define
'Twixt Mrs. Lofty's wealth and mine."

THE BACHELOR UNCLE

BY EVERITT McNEIL.

Synopsis of Preceding Chapters.—John Delvin, farmer, bachelor, is suddenly informed that his niece and nephew are being sent to him for safe keeping, while their parents take a vacation trip. His consternation at this responsibility proves to be well founded as Teddy the nephew, is a young dare devil, and Ellen, his sister, is his ardent worshiper. They have never been in the country before and have some wild ideas about conditions there. This fact brings them into many unusual and amusing situations which prove very trying to Mary Jane, the Bachelor Uncle's conscientious and sedate old housekeeper. Little Ellen's innocent observation that Uncle John ought to have a wife brings out the fact that the uncle has had a serious love affair and that, for some mysterious reason, the woman whom he loved, Elsie Lamont, and who he was convinced loved him, turned from him to Harry Rodney, a wealthy man of his own age in the neighborhood, and who was known to resemble Delvin physically. Their wedding is near at hand. On an exploring trip Teddy and Ellen see a young woman, Belle Murdock, fall from a high bank into the creek. They drag her out, seriously injured. Soon Rodney and Miss Lamont happen along and assist the injured woman, later taking her to her home. As Belle Murdock's father, Red Murdock, is a worthless fellow, and she is practically the sole support and caretaker of little Joey, her crippled brother, Delvin goes over to the house in the morning to offer his assistance, taking Teddy and Ellen with him. As they approach the house they meet Rodney coming away. They find the injured girl suffering greatly and Ellen proposes to stay with Joey while Delvin and Teddy go to town to secure a doctor and nurse.

"I hear there's going to be a wedding in these parts soon," commented Jake Butts, Harry Rodney's nearest neighbor. "And a mighty high-stepping couple they'll make. Rodney's as proud as Lucifer, and Elsie Lamont looks fit to be an earl's wife. I hear the farm won't be good enough for 'em any longer, and that they are going to Boston to live."

"There comes the parson! We'd better be going in!" exclaimed another, and with a glance in the direction of a top- buggy coming down the road, the men, jerking down their vests and pulling at their shirts and collars, in vain efforts to relieve their necks from the unaccustomed stiffness of starched collars and shirt fronts marched slowly into the church and seated themselves with their families.

I waited a moment to greet Parson Henley, and then entered the church. The first thing that caught my eyes was Ellen, seated on one side of Elsie Lamont with Harry Rodney on the other. Mary Jane and Teddy occupied the seat directly in front of them. Ellen was carrying on a very animated whispered conversation with Elsie, and glancing every moment toward the door. The instant she caught sight of me she began to beckon eagerly.

For a moment I knew not what to do. There were awful possibilities in the situation of Ellen! Already her beckoning was beginning to attract the notice of people. I shook my head at her and

frowned. She smiled and beckoned with both hands. Why had Mary Jane allowed her to sit with Elsie? She ought to have known better. And of all the seats in the church, why had Mary Jane chosen the one directly in front of Elsie?

What a coward I was! I grew indignant at myself for being such a fool; and walked down the aisle, never once looking in the direction of Elsie and Ellen. As I seated myself by the side of Mary Jane and Teddy, I heard Ellen whisper to Elsie, so loudly that all sitting near could hear: "See, that's my Uncle John! That big man who has just sat down! He's the best uncle in the world, but he's awful lonesome, 'cause he has no wife. Now, I'll introduce you. Uncle John! Uncle John! Here's—"

"Hush! Hush!" and I fancied I heard Elsie clap her hand over Ellen's mouth. "There's the minister! You must keep quiet!"

At that moment Parson Henley walked up the aisle, and I knew that Ellen was too well behaved to whisper in church with the minister in the pulpit. I had an hour of respite.

I do not remember a word of the sermon that followed. I went through the services like an automaton, with someone pulling the strings at the proper moments. I was clearly conscious of two things only: One, that Elsie Lamont sat in the seat back of me, and the other, that by her side sat Ellen, ready the moment services were over to waylay me and— The shivers ran up and down my back at the thought of what might then occur, with the church full of my friends and neighbors for an audience—yet there was no escape.

All the people in the church were friends and neighbors, and all knew of the attentions I had paid Elsie, and of their sudden and unexpected stoppage; and it would take but a little scene between the two of us to get their neighborly tongues to wagging at a great rate. But, there must be no scene. I would face the music and meet and greet Elsie as if there had never been anything more than friendship between us. I hoped that Ellen would be too surprised to find that we were acquainted to say much, and that I could escape before she recovered; I could see no other way out of the dilemma. If we ignored each other it certainly would cause talk. In country churches all who are acquainted stop for a few moments after the services to exchange friendly greetings; and for Elsie and me, who had played together as boy and girl, to meet and not greet, would be to invite gossip.

At last Parson Henley lifted his hands and pronounced the benediction. The crucial moment had come. As I arose Ellen jumped to her feet, and reaching over back of the seat, caught me by the hand.

"Uncle John! Uncle John!" she said, so loudly that it seemed as if everybody in the church must have heard her. "Uncle

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John! here's the beautiful lady that helped Teddy and me save Belle Murdock. I want to introduce you to her."

I turned around to greet Elsie. She was standing up very straight by the side of Harry Rodney, and looking more beautiful than ever. "I already have the pleasure of knowing Miss—," The words stopped short between my teeth; for, at the first word, Elsie had looked me straight in the eyes for an instant, and then, deliberately turning her back on me and laying a hand confidently on the arm of Harry Rodney, had said: "Come, let us be going."

For a moment I stood, stunned by the rude discourtesy of the act; then, as the full significance of the incivility of her conduct in the presence of friends and neighbors came to me, my teeth went together with a snap, and, bending quickly forward, I picked Ellen up and lifting her over the back of the seat stood her down by the side of Mary Jane, and strode past Elsie and Harry Rodney out of the church, greeting no one and not caring who saw the anger on my face.

Jake had already unfastened the horses, and jumping into the carriage I drove at once to the church platform, where I found Mary Jane and the children awaiting me. As I helped them to their seats Harry Rodney and Elsie came out of the church. The look on Rodney's face, as our eyes met for an instant, made me dig my finger nails deep into the palms of my hands.

So far neither Mary Jane nor the children uttered a word, but the moment we were out of the church yard Mary Jane's indignation burst through her lips. "Of all the stuck-up huzzies that Elsie—," she began.

"Stop! Not another word! This is my affair and needs not your comments," I said, turning on her so fiercely that Ellen, who sat by her side, shrank back in fright. "—," Then my heart gave a great jump; for, looking across the church yard to where Harry Rodney had just helped Elsie into his buggy, I saw his spirited team of blacks suddenly bound up into the air, as the wind blew a wide-brimmed straw hat under their feet, and spring away like a shot, knocking Rodney to the ground, and with Elsie sitting in the buggy alone and helpless. The team made the half circle of the church yard, and then dashed out into the road, running in great leaps that made the buggy behind them bound and sway fearfully. Straight down the road to where I stood in the carriage, paralyzed by the awful danger in which I saw Elsie, came the maddened horses. I never knew the depth and might of my love for Elsie until that moment of dreadful peril. Every vestige of every thought except of her and my love for her and how I might save her, went out of me as I heard her one cry of mortal terror and caught a glimpse of her white face behind the tossing heads and flying manes of the oncoming horses. Then I saw a way; and the blood leaped through my body, and my muscles stiffened into bands of steel, and the numbness left my brain.

"Hold tight to the seat!" I cried, and, turning, I caught the lines from Jake, and, catching up the whip, lashed the horses into a mad gallop. "Stand ready to take the lines, Jake!" I shouted, as my team under the cruel spur of the whip leaped down the road at a fearful rate. I heard the frightened cry of Mary Jane and Ellen, and caught a glimpse of the startled face of Jake and the white, closed lips of Teddy, but I heeded them not. I really saw only the smooth flat road before me, and the coming runaway team behind, with Elsie clinging white and silent to the bounding vehicle.

At first the runaway horses gained rapidly, then more slowly as my team found their speed, but surely Rodney's blacks were drawing nearer, keeping straight in the middle of the road and seeing nothing in the mad frenzy of their flight. At the moment they were about to dash into the rear end of my carriage I pulled my horses short to the right, and, bending forward urged them with a great shout and cruel lashes of the whip, to their uttermost speed. Then I straightened up and gave the lines to Jake. The heads of the blacks were now even with the hind wheels of my carriage. In a moment more they would be abreast. I saw that the lines were dangling behind them on the ground. In the carriage with Elsie I would be helpless to stay their flight. Now the back of the near horse was even with me and not four feet away. At that moment of deadly peril to both of us my eyes looked for one brief instant into the eyes of Elsie, and I saw that come what might, wed whom she might, I had her love. Love knows no concealments when death

stands watching. Then I leaped straight from the box of the carriage onto the swaying back before me. Thank God for the strength in my arms; for only the grip of my right hand, which caught hold of the back piece of the harness, saved me from being hurled to the ground. The horse staggered under my weight, but only for an instant. The shock of two hundred and forty pounds hurled suddenly upon his back had been as nothing to the fear-crazed animal. Now I drew myself up firmly astride the horse, and, gripping the two bridle reins, I put forth all my strength to bring the horses under control. For a time I could not prevail; then, slowly but surely the speed lessened, and by the time we had gone a mile from the church I had the animals completely subdued.

Not until I stood on the ground, holding both horses firmly by the bits, did I venture to look at Elsie. She sat in the carriage, with all the haughtiness gone out of her white face.

"John!"

I deliberately looked in another direction, but out of the corner of my eye I saw Elsie straighten up with a jerk.

"Mr. Delvin, you have saved my life. My father will thank you. I—I—can not," and she burst into tears, hiding her face in her hands.

"You owe me no thanks," I replied shortly. "What I did for you I would have done for any one," and I turned my back to her and stood firmly at the horses' heads until Jake drove up a minute later; for, now that the peril was over, and Elsie safe, the wrath in my heart burned up afresh, and I had no desire to be over-pleasant with her. Very carefully Jake and I examined the horses, carriage and harness, and found all sound. Elsie had stopped her crying, and now sat up straight and silent. She was trembling, but she did not faint, and I wondered at it, nor did she look toward me again.

"Jake," I said, the moment the examination was over, "get into the buggy, and return Miss Lamont and the buggy and the horses, with my compliments, to Mr. Rodney." Then, without a glance toward Elsie, I sprang into my carriage and drove off, leaving Jake to restore the property to Harry Rodney.

For a moment after I was in the seat by his side Teddy regarded me in silent admiration; then he said very earnestly, his eyes shining and his face reddening: "Uncle John I wish Teddy Roosevelt could have seen you when you leaped on the back of that runaway team! You looked grand! That was the bravest thing I ever saw! You must be awful strong, Uncle John!" and I could see that, for the moment, he had placed me way up near the top of the lofty pedestal whereon he had stood his hero of heroes, Teddy Roosevelt.

But Ellen came up from behind the seat timidly, and put her arms around my neck and held me tight and kissed me. "Oh, Uncle John! Uncle John!" she commenced, and then she could not speak another word because of the sobs in her voice.

"John Delvin you were a fool to risk your life an' the breakin' of th' necks of every blessed one of us for a girl who had just treated you worse than heathenish! But all men are fools when it comes to a pretty face; an' th' bigger th' man th' bigger th' fool I guess!" grumbled Mary Jane, the tears in her eyes sweetening the bitterness in her words. "Now, Ellen, stop that squeezin' an' kissin', an' help me find my top-jaw. It's a mercy that I have got a head left on my shoulders!" and she began feeling around in the bottom of the carriage for her upper teeth, which had dropped out during the excitement of the race with the runaway horses. When the teeth were found she slipped them back into her mouth with an audible sigh of relief. "I ate my first meal with them teeth nigh onto twenty years ago an' they have been faithful chewers ever since. 'Twant worth th' risk of losing them, John Delvin," and she glanced indignantly from me toward the retreating buggy wherein sat Elsie Lamont and Jake, the hired man.

When I reached the house I put the horses in the barn; and, telling Mary Jane that I would not be back in time for supper nor to help Jake with the chores, I went for a long walk along the river, where I could be alone.

My heart was too sore to endure the sympathy, or curiosity, or even the presence of others. I had been hurt by one whom I thought far above the meanness of so rude an incivility; and no pain rankles more cruelly in the heart than the wrong of being scorned, unjustly and in the presence of friends, by the one we love. Then the glimpse I had caught of

Elsie's heart, at the moment when the fear of death had swept away the barrier between us, had been like a look through the forbidden doors of heaven. Now the doors had swung shut, and I was on the outside! But why? More insistent than ever became this question, and more painful and perplexing its solution.

For long weary hours I walked up and down the banks of the river, thinking, thinking, thinking until I was completely worn out in body and mind; and then I returned to the house and went directly to bed.

(To be continued).

BEYOND RECALL.

BY LALIA MITCHELL.

What are the things beyond recall?
Not the gold that we held so dear,
Not the splendor of gaud or gear—
These are alike the prize of all,

Yours tomorrow and mine today,
A breath of wind or a flake of spray.

What are the things beyond recall?
Not the honors we held so high,
Not the glory for which we try—
We can climb again, though once we fall,
And Fame is less than a Summer flower
Gathered and fading within the hour.

What are the things beyond recall?
The word that we might have given
Whose heart was our own from sun
to sun;
The kiss deferred, or the loving call
That echoes in ears, while they can
hear—
These are the things worth holding
dear.

What are the things beyond recall?
Sit in the dark sometimes and see
The truths that conscience will show
to thee—
Just love-giving and that is all.
Gold and honors, oh, these can wait,
But not the kiss that might come too
late.

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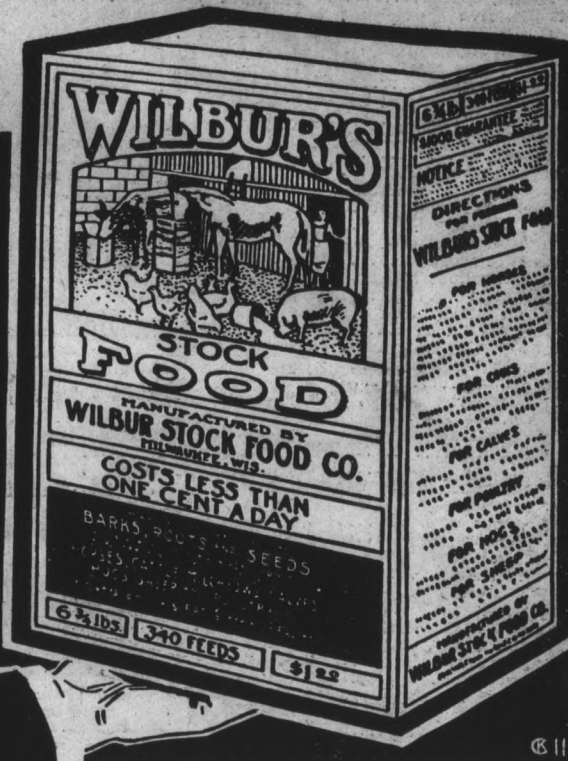
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 Wilbur Stock Food Co., Milwaukee, Wis.
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