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NOTWITHSTANDING the fact that the weather was dark and threatening during the first four days of the International, there was a very large attendance of live stock men and farmers from all parts of the country who came to see this greatest of live stock shows. And they were well rewarded for their enterprise, as the show was everywhere conceded to be the best in the history of the International, not only in the number of entries, but as well in the average quality of the exhibits.

While there was no abatement of the usual interest in the individual fat classes and the breeding classes, there was a noticeably increased interest in the carlot classes on the part of the crowd. This was perhaps in part due to the apparent fact that a larger proportion of the patrons of the show were stockmen and farmers than has ever before been the case and would indicate that they are carefully studying the feeding situation, especially as related to cattle. Veteran feeders were to be found everywhere among the crowd, while conversation with many interested students of the carlot classes indicated that they were carefully studying the exhibits at first hand with a view of engaging in the cattle feeding business for the first time. The writer is gratified to report that among the latter class he interviewed several who have invested in considerable blocks of northern Michigan land, with a view of engaging in the feeding business. Thus this year's International will doubtless have a more beneficial effect upon Michigan's live stock industry, as well as that of the entire country, than has ever before been noted, since there is no place where the important factors of type and quality and finish can be so effectively studied as in the exhibit pens and sale rings of the carlot classes at the International.

In the carlot classes the Angus breed won even greater laurels than at any previous show, notwithstanding the fact that they have been such consistent winners in past years. The grand championship in this class was won by an exceptionally fine load of "baby beeves" exhibited by Escher & Ryan, of Irwin, Iowa, who also won the premier honor in this class in 1911 and who have to their

The International.

credit the remarkable record of having won firsts or championships at eleven International shows in classes which they have entered. The grand champions were an exceedingly mellow, well finished and even load of yearlings which won the honor over such excellent competitors as to clearly indicate, as did most of the awards in this year's show, that the younger cattle are the favorites with the judges, other factors in the competition being equal. This conclusion was given the greater emphasis from the fact that of the champions by ages, which are alone eligible for competition in the grand championship class, the closest competitors for the premier honor were two-year-olds of the same breed and exhibited by the same firm, and they were very worthy competitors indeed. Also, the champions in the three-year class were Angus steers, exhibited by V. M. Scott, of Paris, Ill., and were typical of the best in three-year-old form. Thus no strife of breeds and little of breeders or feeders could possibly have entered into this competition, and the result holds more than an ordinary lesson for the cattle feeders of the country. When "baby beef" wins in competition of this kind it is certainly sufficient evidence that it can hold its own in the sale pen with any kind, and with the additional fact that cheaper gains can be made on the younger animals the economic conclusion should be easily reached by the cattle feeder who is a student of the economic phases of the feeding business which constitute the greatest factor in the successful development and prosecution of this business on any farm.

In this connection the method of handling these great cattle from start to finish will be of interest. They were calved in March, April and May, 1912. They ran with their dams on blue grass pasture during the summer and were weaned early in November, at which time they averaged 450 lbs. in weight. And right here is an important-factor in the making of their enviable record, as in this

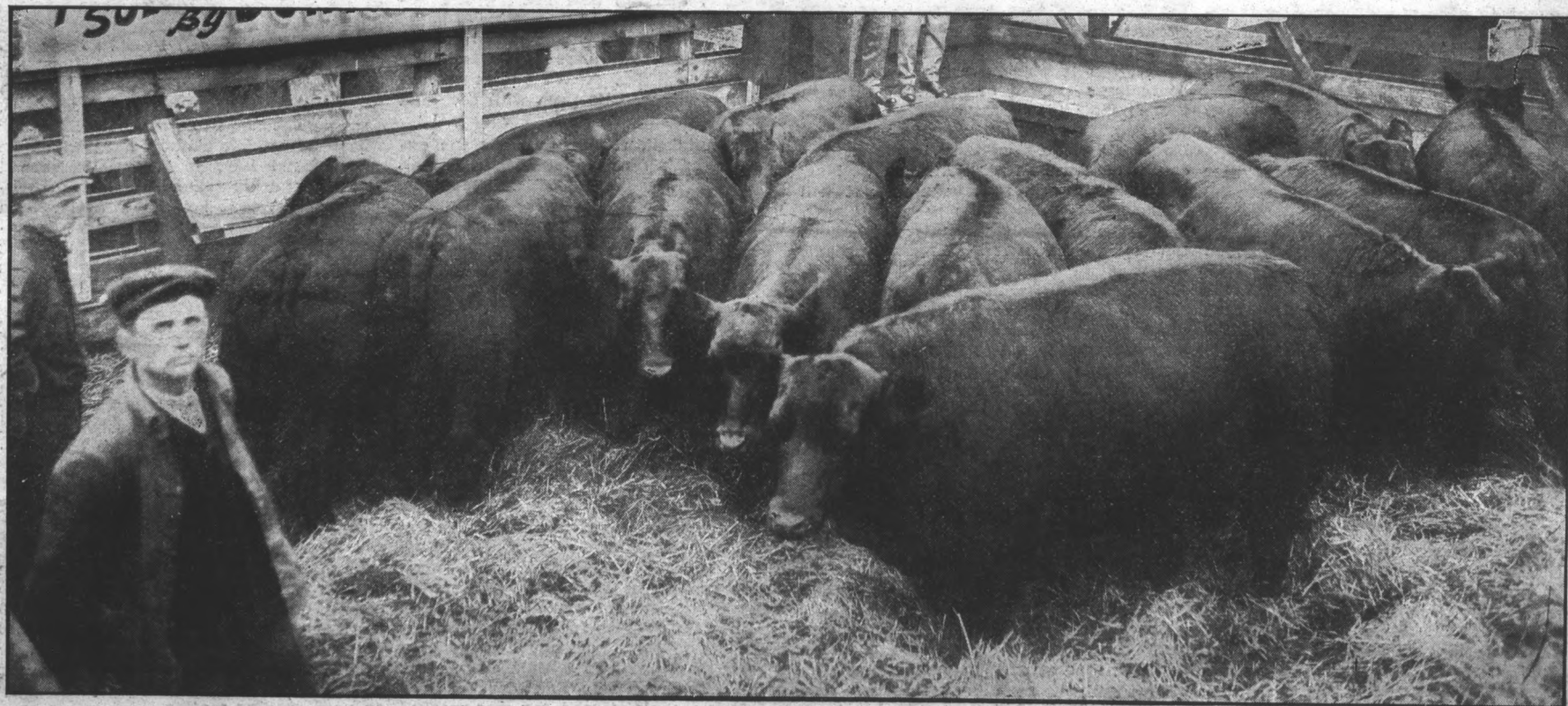
weaning process they sustained no shock or check in their growth and never mourned the change or shrunk a pound. This desirable end was accomplished by constructing a "creep" in the pasture, through which the calves had access during the summer to a pen in which they were supplied a grain ration of shelled corn and oats mixed, which grain they early learned to like and eat with a relish. Liberal feeding of this grain when they were weaned kept them just as well nourished and satisfied after separation from their dams as when they were sucking them, and they kept right on growing. During the winter they were gradually accustomed to a heavier ration until they were got on "full feed" of home-grown grains, the only supplementary feed purchased being molasses. This feed is deemed of especial value by the veteran feeders who won this coveted honor for the reason that it causes the cattle to drink more water than they otherwise would and that this causes them to make more rapid gains. Another interesting fact in connection with the feeding of these cattle is that oat hay was used as clover hay ordinarily would be as a factor in the roughage ration, the clover seeding having failed in that portion of Iowa last year, and naturally oat hay has the unqualified indorsement of these experienced feeders as a substitute for clover hay when the latter is not available. They also place emphasis on the factor of variety in the ration for best results with feeding cattle, as well as inducing them to drink plenty of water.

The grand champions averaged 1,130 lbs. in weight, and were purchased in the sale ring at \$13.25 per cwt. by the representative of a local hotel. They brought at this figure \$149.72 each, or a total of \$2,245.87, after having won a total of \$855 in prizes. This price, while under the record of last year, was considered satisfactory and relatively higher as compared with the general market, since while the grand champions of the 1912 show, also Angus yearlings, brought \$14, the

top price in the open market at that time was \$11.25 per cwt. as compared with a top limit of \$9.60 for the week this year. This is a gratifying comparison, since it represented the approximate value of these cattle in the open market, as evidenced by the sale of the White exhibit of Angus yearlings at \$13 per cwt., while the Escher & Ryan two-year-old Angus steers which won the reserve championship sold at \$11.80 per cwt., and Scott's first-prize three-year-olds, also contenders for the grand championship brought but \$10 per cwt., thus again demonstrating the market superiority of baby beef.

Notwithstanding the sweeping victory of the Angus breed in the fat class championships it would be unjust not to mention the great showing made by the other beef breeds in the carlot exhibits. While none could criticize the excellent work of the judges, the patrons of the show were divided in their admiration of the winners and the magnificent exhibits of Shorthorns, Herefords and Galloways, very many of which would have been not only easy but notable winners in any other ring. While no one who saw with an appreciating eye the wonderful quality of the winners would say a word derogatory to them, the best informed observers could not do less than divide the credit for the honors between the breed and the skilled and experienced breeders and feeders who exhibited them, and while all patrons of the Angus breed may well be gratified and proud of the victory scored by their breed at this year's International, patrons of the other beef breeds need feel no chagrin or discouragement at the showing made by their favorites at this greatest of live stock shows in which utility is the final arbiter.

As a matter of fact, although the Angus breed carried off all championship honors in the carlot fat classes, the Herefords beat them out in the number of prizes won. In the yearling class the blacks won first and second prizes, the third and fourth going to Herefords. In the two-year-old class an Angus entry won first while the second and third prizes went to Herefords and fourth to a fine load of Angus-Hereford crossbred cattle. This pen attracted much attention. (Continued on page 532).



Again the Grand Champion Carload of Fat Steers at the International Live Stock Exposition were Yearling Angus Baby Beeves.

What is Profit in Farming.

In Lillie Farmstead Notes in the issue of November 15, pages 438-439, of the Michigan Farmer, Mr. Lillie says: "It has not been a profitable year in this section for farming." * * * "Last year there was an actual loss in farming." Considering that Mr. Lillie owns a farm of adequate size, according to farm management experts, and considering that he is perhaps Michigan's leading agriculturist, is this not discouraging testimony and is it not sufficient to make most thinking young men desire more to secure service with some corporation or the public service—jobs paying salaries, with a chance of promotion and perhaps a civil pension coming later, rather than taking up the more or less isolated life of a farmer, with uncertain remuneration and no chance of pension, but only a prospect of being a heavy contributor to other fellows' pensions, and usually not much vacation. In order that we may more definitely get at this question of profits in farming in Michigan, will you not have Mr. Lillie give more definite figures of his farm operations, giving acreage, inventory, expense account, and receipts, classified as to source, as crops, dairy, etc. Also have him explain what he means by profit in farming.

St. Joseph Co.

It is a fair and interesting question to ask, "What is profit in farming, or how much profit is there in farming at the present time?" Most of the so-called profit in farming is simply wages earned by the farmer and his family. If a man worked in a factory or automobile shop he would get wages for his labor. And so with the farmer. He should get wages for the manual labor he performs. The manufacturer first deducts the labor and other expenses and then he figures the interest on the capital invested. The capital itself ought to earn this. And over and above that, if any, is profit. Farming ought to be figured in the same way. For instance, in my own case, I figure that my farm and equipment is worth \$30,000. I have got 289 acres of land, good buildings and plenty of them, I am well supplied with tools, and have a heavy investment in live stock. It is really worth more than that, but I put it down for that because you must put it down for something if you are going to keep books and have an inventory. Now if I could turn this property into money and get \$30,000 and put that out at interest I would have no trouble in putting it out at six per cent. I could invest it in bonds or in real estate. There are lots of opportunities where one can invest capital and get it to earn six per cent. Now why shouldn't it be required to earn six per cent in farming, and from a business standpoint and as a business proposition have I any right to say that if I have \$1,800 over and above the actual expenses of the farm that there is that much profit in farming? My \$30,000 investment has then simply earned six per cent or what it would earn in any other investment, and I ought to have over the six per cent interest on the investment to get any profit. I will admit that my case in farming is very much different from the ordinary farmer. I have outside business that takes a lot of my time and energy and I don't pretend to do manual labor on the farm, but I do pretend to give it supervision. What that supervision is worth I do not know. I am satisfied that if I would give up writing for the Michigan Farmer, for instance, and several other things that I do, and settle down on the farm, get up at five o'clock in the morning and work with the men as I used to do, that I could save about two men's wages. Now I would earn that much money, that would be what I would get for labor. If I was sufficiently strong to do this labor and the supervision also, which would take part of the night, then I ought to have pay for that. But, nevertheless, the \$30,000 that I have got invested ought to earn me six per cent interest over and above my labor. I would figure that if it was doing that and I only got \$1,800 over and above expenses, that I got little or nothing for my labor on the farm, because my capital would earn \$1,800 if I had it out of the farm and invested in something else.

Two or three years ago I told Editor Waterbury that I was interested in trying to demonstrate that farming is a profitable business. You remember that he wrote an editorial on this one time, so that the idea made an impression upon him, and he practically agreed that the average farmer didn't get interest on his investment and good wages for the labor that he and his family performed, and I don't believe he does. But you say you know of men who are getting ahead on the farm. Yes! So do I. I don't calculate I am running behind at all. But these men who are getting ahead are men who are physically strong, and mentally also, and they do a whole lot of hard work, and that is figured as profit in farming. If those same men worked for some manufacturer where they could use their strength and their energy, they would get mighty good wages also. Not only that, but the farmer's family assists materially. If he has got growing children they many times earn good wages. Many a boy 15 or 16 years old takes the place of a hired man, and this is not figured in. What he earns is figured as so

much clear gain, and really it is. But when you are figuring farming as a business proposition it ought to be charged against the business, as it would be in the manufacture of automobiles or boots and shoes, and why shouldn't it be in farming?

Of course, an increase in live stock, perhaps an increase in soil fertility, ought to be taken into consideration in the profits of farming. Certainly if a man raises a bunch of nice calves or colts or pigs or anything of that sort and doesn't dispose of them so that he turns them into cash, they are really so much increase in the inventory of the farm and will figure as profit in farming, provided you have made wages for your labor, interest on the investment, etc., besides. But where one has to build a new fence or where one has to repair an old fence, or repair buildings, or anything of that sort, he can't figure that as profit, because that is current expense. Those repairs will have to be made again in the course of a few years. And that is an item of expense just as much as the hired man's wages, we might say, and is not profit. Also the natural wear of the tools should be taken into consideration, because they wear out. It is none too much to charge off ten per cent every year for the actual wear of the tools. If one buys new tools, of course they must be added to the inventory, but the real value of farm tools in the inventory ought to be reduced ten per cent every year for wear.

Then, again, it is not fair to figure farming as a business for one year or for two years. We ought not to figure the profits in farming for less than a five-year average, and it would be better and fairer to figure it on a ten-year average. A renter knows that it does not pay to rent a farm for one year, because it may be a bad year and he may lose out. He may be worse off at the end of the year than he was when he started. Everything may be against him. He knows that it doesn't hardly pay to rent a farm for two years, because we may have two poor years in succession, although we rarely do. But no man should rent a farm as a business proposition if he can avoid it, for less than five years, and then if he takes the average for five years it will be a fair average for the profits in farming. But a five-year average is not as good as a ten-year average. Seasons change and this makes the farmer's profit change.

Now in my notes referred to by L. P. F., I stated that last year there was an actual loss in farming. I meant, of course, on my farm. We nearly drowned out. I think those that kept track of Lillie Farmstead Notes read my wail of woe more than once. Now this year we did better, but it was extremely dry. If we could have had one or two good rains in the summer the whole thing would have changed. We are short on forage crops. No crops yielded as they ought to, because there wasn't moisture enough. Now the probability is that next year it will be better. It always has been that way, and while I cannot tell this year about the profit, because it isn't figured up yet, and won't be until next May, I am confident in my own mind that there is very little actual profit. But it must be understood in my farming that every bit of labor has to be paid for. I have no growing boys, nobody to help me. Everything must depend upon hired men, and when I pay the labor bill, which comes to over \$3,000 every year, and the other expenses, and then make interest on the investment, the actual profits in farming dwindle, especially in bad years.

COLON C. LILLIE.

ERADICATING QUACK GRASS.

Kindly advise as to best method of eradicating quack grass. SUBSCRIBER.

Quack grass can be eradicated by any method of clean culture which prevents it from making any appreciable growth above ground, as this will starve the roots and finally kill them. It has been

found by investigation, however, that the underground stems or root stocks of quack grass have different habits of growth under different conditions, being deepest rooted and most vigorous in cultivated fields. In meadows and pastures which have been in grass for several years these underground stems are found to be very much closer to the surface, practically all of them occurring in the first two or three inches of surface soil. When in this condition, if the sod is plowed in the midsummer as shallow as practical, say about three inches deep, and kept well worked with a disk harrow until fall, this sod will be cut into small sections, which will be so thoroughly dried out that the roots will be practically all killed. Then if this field is again plowed at a good depth in the spring for a cultivated crop, there will be very little if any, quack grass make its appearance in the crop. This is probably the least expensive method of ridding the land of this pest, but as above noted, the same results can be accomplished by any method which will prevent the growth of the grass above ground for a sufficient length of time to starve the roots.

A WORD FOR GOOD ROADS.

A few months ago the writer contributed to these columns, an article on the crushed stone roads of Fayette township. In view of the facts that such roads are comparatively unknown in the country districts of Michigan and that many farmers oppose the plan on the grounds of expense, the publication of a recent interview with a prominent Ohio farmer, would seem pertinent. No attempt will be made to quote verbatim, the conversation in question, but simply to disclose the fundamental facts.

In way of explanation, let it be said that the Ohio man is a well-to-do farmer of Paulding county. In the matter of good roads this county is wonderfully progressive. All of the principal roads of the county are made of crushed stone, and in some cases, practically whole townships possess nothing but this superior kind of highway. Owing to the fact that stone for the work cannot be obtained in Paulding county, the crushed material is shipped in, and the cost for each mile of road is around four thousand dollars—nearly twice as much as in Fayette township where the stone are procured and crushed in the immediate locality. In spite of this disadvantage, however, the Ohio man was unreservedly and enthusiastically in favor of the stone roads.

In discussing the good roads question, the man from Paulding county said: "Without a doubt our new crushed stone roads have done much to increase the value of our farms. Land now sells in my neighborhood for from \$150 to \$225 per acre. If a farm happens to be located on a cross road not yet rebuilt, the price of the land is much lower, for people have learned that no kind of dirt road is equal to stone for the drawing of heavy loads of farm produce. I would hesitate for a long time before selling my farm at any price, if it were to mean removal to a locality not yet improved by the construction of stone roads. I have helped to construct these roads in my own township, and am now reaping the advantages. I feel that what I have spent in time and money, is returning to me in increased value of my farm and in better traveling facilities. When I wish to market my produce, it is done with ease and expedition unknown in former days."

In a nutshell, the foregoing is the expression of a farmer living in a section noted for its good roads. It would be well for Michigan farmers who oppose the system to ponder over this testimony which is the result of mature experience. Many Michigan roads may not need improvement so much as did the heavy roads of Paulding county, but it is putting the case mildly to say that they need it bad enough. It is true that the owners of automobiles profit by these improved highways, but it is also true they are helping to pay for them. It is true, too, that in the last analysis the greatest benefit goes to the farmer. It is he who draws the heavy loads to market, and it is his property which is raised in value by the road improvement. For farmers to oppose these improvements, is to say the least, an exceedingly short-sighted policy. Better roads—good roads—are surely coming in Michigan. The movement is wide-spread and inevitable. Let the farmers of each community put their shoulders to the wheel and help along a movement which will benefit them most of all. The man who sighs for the good old days when the road tax was worked

out under no system at all, is looking back to a condition that has passed forever. The memory of those newly worked roads, however, piled high in the middle with earth and sod for half the summer, will long linger in the minds of those who were compelled to endure the hardship of travelling over them. The good roads movement is practical, progressive, economical. Let us lend a hand.

Hillsdale Co.

J. A. KAISER.

NOTES FROM OGEMAW COUNTY.

At the Farmers' Institute held at West Branch, December 2-3, the 36 students of agriculture in the high school attended in a body. Also the county normal class of 14. The farmers are generally in a cheerful frame of mind. A mortgage for \$5,500 has just been placed to secure a loan of like amount on an 80-acre farm. As far as your correspondent could learn this is the highest valuation ever given an 80-acre farm by money loaners in this county.

A great many potatoes have been shipped from this place this year, 50 cents being the prevailing price.

Beans are bringing \$1.70 per bu. The pea business, which once flourished here, seems to be much on the wane. Money loaned at the banks to farmers at seven per cent. County just voted to bond for \$75,000 to build roads. Majority, 80 in the vote of 500.—A. B. C.

WHY BOYS LEAVE THE FARM.

Boys should have the greatest freedom to select a lifework for themselves. They may have talents which favor them for some particular calling. If they have such talents they will discover them about as soon as anybody. I well remember a time when a playmate and myself were speculating in futures. I preferred to be a farmer. He said that he wanted to be a gunsmith. Raising his hands up before his face to imitate the holding of a gun, he said he believed he could make a gun that would shoot right to the mark. He proved in after life that he did not overestimate his ability in that respect. A father should strive to bring about such a state of feeling between himself and son that the son can leave home without embarrassment, and can come back without embarrassment. Should he be determined to go, let him know that he has your well-wishes. After he has seen some of the world, and found out, contrary to his expectations, that everything which his hand touches does not turn to gold, he may be glad to get back onto father's farm. Should he expect to meet with a cold or indifferent reception when he proposes to come back, he probably will not make the proposal.

The most effective work can be done with children when they are quite young. They have everything to learn and they look upon their parents as the possessor of great wisdom and knowledge. Get their confidence and they are easily led. I feel sorry for the man or woman who cannot be interested and amused at the development of intelligence in a child. Get interested in their peculiar idea of things which they see around them. I well remember when a playmate had a spot picked out on the back part of his father's farm where he was going to build a store and a tavern. I once knew a little girl who, after studying up the situation around home, said to her mother, "We could get along without pa all right, only we need him to work." A little boy was once talking about things which he saw around him, in a very unlearned manner, and his father said to his mother, "Doesn't that boy know better than to talk in that way?" The boy was unlearned in many things but he was not so ignorant that he did not know that his father's remark was not intended for a compliment.

Most men have tender recollections of Mother. She was their constant companion during the years when their minds were developing, and they have received impressions which will influence their whole lives. Many a man is on the old farm today who is held there by Mother's influence.

Branch Co.

O. A. VANDERBILT.

IMPORTANT.

If your subscription to the Michigan Farmer expires soon it is important to send your renewal at once. Send \$2.00 for five years, \$1.25 for three years, \$1.00 for two years or 50 cents for one year. Or in this issue you will find some excellent clubbing offers that will save you money on your reading matter.

Why We Should Rotate Crops—No. 2.

If we were to state the absolute facts in regard to the desires of the pioneer farmers of this country, we would be compelled to say that the inherent desire of the most of them has been to follow one crop farming. Some of them are good judges of land suited to raising different leading crops. They look for certain indications and characteristics in soil, and say that it is good wheat land, or good corn land, as the case may be. It is their custom to remain in a portion of country only as long as the land will profitably produce their favorite crop and then move to newer portions of country. Such a course has been pursued, and is being practiced, until according to the government reports, more than three-fourths of the wheat consumed in the United States is raised by the single crop system.

Agriculturists and political economists have sounded the notes of warning, and yet the process of what is called "soil robbing" is being carried on. In Minnesota and the Dakotas we have what some have pleased to call them, the "professional wheat raisers," and others call them "soil skimmers." In the corn belt where nature bestowed an abundance of vegetable matter on the surface, and the prairies are a vast expanse of sediment and decaying organic matter, there we have the corn growers who, for a life time have but tickled the surface of the ground with the plow, planted the seed, and the whole expanse of country has laughed with abundant harvests. The people of the whole country have been blessed by the abundant crops of corn, for it has been cheap and could be utilized for feed at every point reached by our railroad systems.

But the end of single crop raising seems to be near. In the Dakotas, to use the common expression, the soil has hardened, and it requires much more motive power to turn up and loosen the soil than formerly. The crops have diminished and they resort to the old plan spoken of in Holy Writ, "let the land rest." The decaying vegetable matter near the surface in the soil is nearly used up, and it refuses to bring forth abundant crops. The large quantities of nitrogen that was present in the virgin soil, which neutralized the poisonous substances excreted by the wheat roots, is nearly exhausted, and there are indications of a feeble rather than a vigorous growth of the wheat plants. Similar conditions prevail with some of the heavy clay lands of Michigan. The potent remedies are raising on such soils, June clover and alfalfa, keeping stock and returning the manure to the land, regular system of crop rotation, and careful methods of cultivation.

Many of the farmers in the corn belt have adopted a system of diversified farming, making the keeping of live stock or dairying the leading branch of their business. Keeping of live stock calls for the clovers as a forage feed, which necessitates a regular system of rotation of crops. Instead of the desolate looking condition that is an accompaniment of one-crop farming, buildings have been erected and a general air of comfort and prosperity prevails.

When one-crop raising prevails there is a condition in the soil similar to that of fatigue with men. After several hours of hard labor there is in the circulatory system an accumulation of torn down or worn out tissues, which has accumulated faster than the phagocyte corpuscles, or scavengers of the blood, could clear out. Rest must follow, and it is during the hours of sleep that this waste matter in the blood is disposed of largely through the cutaneous system and the renal secretions. After a night's sleep, the circulatory system having been cleared of all waste material, the individual feels refreshed and is ready to take up the rounds of labor.

Some of our modern experimenters have placed in a wire container dirt rich in plant foods, and put it in the surface of the ground. This gave the dirt in the container precisely the same conditions that prevailed in the ground surrounding it. They planted wheat and it grew with usual vigor. After growing a few weeks they pulled it up and planted in the container more wheat, and it made only a sickly growth.

In the same dirt in the container cowpeas were sown which made a good growth. After a few weeks the cowpea vines were taken out and more cowpeas planted, but the second crop was not successful. It was like the second crop of wheat. Potato seedlings were put in the container and they grew well. After

the potatoes wheat was again planted in the container and it grew to perfection.

The conclusion arrived at by the United States Bureau of Soils, is, that the excreta of plant roots is poison to the plants of the same kind. After producing one kind of a crop the soil needs rest, or a change of occupation. In the case of wheat, farmers give the land a rest by summer fallowing, after which the wheat grows abundantly. Lime, freezing and working the ground has given it an opportunity to free itself of the poison.

Some contend that the elements required for the different crops are so different that after one crop has taken its needs, another kind of a crop can be utilized to take its needs, and so on. But according to the chemical analysis, a crop of wheat and oats take nearly the same quantities of nitrogen, phosphoric acid and potash. Oats do not succeed well when sown repeatedly on the same ground. Corn will succeed itself better than the other crops, and it takes almost as much nitrogen for a single crop as both the wheat and oats, and more than as much as both of the phosphoric acid, and almost twice as much potash as both. It is not always the lack of plant food in the soil that causes a diminution in the yield. It is often poison excreted from the roots of the preceding crop of the same kind. Some crops, like oats and sugar beets, leave a poison in the soil which is injurious to and retards the growth of some other kinds of crops.

Encouraged by the results obtained by the German investigators, who had discovered the toxin in man and animals which they call the "germ of fatigue," the Federal Bureau of Soils set the experts at work to see if it is possible to know what, if anything, constitute the germ of fatigue in sterile soils. Great numbers of samples of sterile soil was gathered from all parts of the country. Both sterile and fertile portions of soil were examined. In all of the portions of sterile soils examined the compound dihydroxystearic acid was present, but was not present in the fertile soils.

Whether the compound mentioned is the germ of fatigue in soils or not, the experts do not seem to be ready to state positively, but they did set themselves about the task of finding something to dissipate or neutralize it. The element nitrogen was found to be precisely what is needed to prevent the gathering of the dihydroxystearic acid and if applied very promptly neutralizes it. If the farmers practice applying barnyard manure, and using clover in the rotation, they need never fear the approach of this germ of soil fatigue. If from abuse of the soil by constant cropping without applying barnyard manure, or rotating with clover the soil becomes sterile, the remedy is easily found in the manure and clover. There has been, and probably will be, cases in the future, where the nitrogen being so thoroughly cropped out of the soil, that in order to get clover started, the use of barnyard manure or nitrogen in some commercial form must be resorted to. When it is possible to secure a growth of clover, the task of building up fertility in the soil is not a difficult one, if the plan of stuffing the soil with organic matter is consistently followed.

The Federal Bureau of soils found another substance in some sterile soils which they call cumerin, which is not neutralized by nitrogen or potash, but is readily dissipated by the use of a small quantity of phosphate salts.

The results obtained in both cases are precisely what those who believe that the capabilities of plants to gather their food in the soil, depends upon the balance of the mineral plant foods in the soil naturally expected. If the acids are superabundant, something must be used to check them and restore the proper balance. Then the alkali elements are too abundant, then an acid plant food can be used to restore the proper balance between them, and then the processes of growth goes along in a normal manner.

All of the experiments made at the different experiment stations, and the results crystallized by the Federal Bureau of Soils, tend to prove the wisdom of rotating crops in such a manner as to use the manure from farm animals on the land and at the same time make clover one of the crops in the rotation. By following such a course in a consistent manner, the danger of meeting any trouble from the germ of fatigue in the soil can be deferred for very many years. If keeping all the stock on the farms that can be well fed were more general, and

regular systems of rotation followed, prosperity would be more universal on the farms, and there would be less money wasted on commercial fertilizers, for in very many instances the results would prove that the costs would exceed the value of the increase in the crop.

Wayne Co.

N. A. CLAPP.

CORN SHOW FOR ST. CLAIR COUNTY.

On November 21-22, we held what we believed was the first corn show ever held in St. Clair county. This corn was selected by the children in the rural schools and most of the schools in this county were represented, but in some sections of the county, weather was not favorable for a good crop of corn and so naturally the parents did not want their children to send in corn.

This county cannot be classified as a good corn county, but, nevertheless, we had a large number of samples of the very best corn. The object in holding this fair was to get the children interested in corn club work throughout the county, in view of organizing corn clubs in this county next year and also to ascertain the kind of corn and the quality which is generally grown throughout the county. From the number of samples which we received I believe we can rightly assume that over half of the corn grown in this county is the Yellow Dent, the White Dent and White Cap comes second, with the Flint varieties third and the Strawberry Dent fourth. All of the corn which was shown at this fair was the very best available in the respective sections and judging from the corn received there is a great deal grown in St. Clair county which is badly mixed and should be eliminated. Much of the corn is very small, and large yields cannot be expected from such varieties. Out of about 400 samples of corn we decided that there were only 50 samples which deserved a place in the agriculture in St. Clair county. The Flint samples were very good and I believe far above the average of Flint corn grown.

Prof. V. M. Shoemith, from M. A. C., judged this corn and Dr. Eben Mumford, spent a day with us and on Saturday afternoon he gave a very interesting talk on the advisability of securing good seed corn, to the farmers.

Liberal prizes were offered and the children took a great deal of interest in this fair because it was for them, and the parents apparently took as much interest as the children. About 1,000 farmers visited the fair during the two days and a number who had not been very favorable with this agricultural movement became interested also. This is only the beginning of the formation of corn clubs in this county and next year we expect to have a number of boys who will grow an acre of seed corn and this corn will be a great deal better corn than was on exhibit at our corn fair this year. We are going to furnish the children with good clean seed of uniform type and so all of them will be started on the same basis. The prize winners in the various classes follow. The prizes, which were cash, ranged from one to five dollars.

Yellow Dent.—First, Ruth Schaenzlin; 2nd, Jennie McCartney; 3rd, Isaac Hillock; 4th, Merl Fritz; 5th, Margretta Dunn; 6th, Cecelia Tebeau; 7th, Walter Fritz; 8th, Hazel Dreschler; 9th, Alice Lawler; 10th, Esper Donahue; 11th, Clark McDonald; 12th, Mabel Dreschler; 13th, Fenton Low; 14th, Florence Cahours.

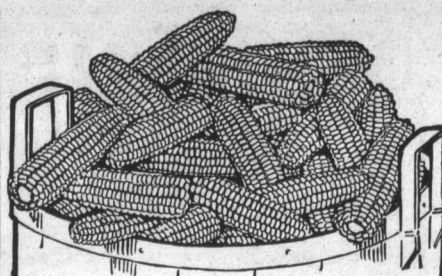
White Cap and White.—First, Glen Barrett; 2nd, Dorothy Crocker; 3rd, Richard Scramler; 4th, George Tripp; 5th, Clarence David; 6th, Otto Schroeder; 7th, Linne Dane; 8th, Ellen Young; 9th, Dudley Field; 10th, John Hillock.

Strawberry Dent.—First, Elliott Folkerts; 2nd, Myron Moak; 3rd, Murley Bonney; 4th, Mark Lashbrook; 5th, Gerald Pemberton; 6th, Walter Fritz; 7th, Russell Boules; 8th, Fred Parker.

Flint.—First, Dwain Dunsmore; 2nd, Gertrude Shanahan; 3rd, Franklin Cowles; 4th, Russell Easton; 5th, Thelma Fahs; 6th, Fred Kurz; 7th, Earnest Stager; 8th, Justice Domman; 9th, Linden Rhodeman; 10th, Hulda LaBuhn; 11th, Fred Bruch; 12th, Frank Freeger; 13th, E. Lowell.

Sweepstake.—First, Carl Stein; 2nd, Ruth Schaenzlin; 3rd, Glen Barrett. Pop Corn.—First, Irvin Wuest.

The approach of winter has brought large numbers of partly fattened cattle from Wisconsin, Minnesota and northern Iowa to Chicago and other western markets, owners showing an anxiety to get their stock cashed in before bad weather sets in, and prices reached lower levels, with even the best class of heavy beefs participating in such reductions in values. Yearlings and fat butcher stock are apt to show the most activity, but demand for nearly all descriptions of cattle fell off to a marked degree, as usual, during Thanksgiving week, when nearly every family eat poultry.



**80 to 100 Bushels
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**Fish
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Drilled 200 to 400 lbs. to the
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Write for copy of "Six Mighty
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No Entrance Examinations.

Write for circulars giving full information concerning each of these courses.

PRESIDENT J. L. SNYDER, East Lansing, Mich.

NOTICE

At the annual meeting to be held in the city of Hastings on January 13, 1914, to commence at ten o'clock A. M., the members of the Michigan Mutual Tornado, Cyclone and Windstorm Insurance Company will vote on amendments of sections 5 and 7 of the charter of the said company.

D. W. ROGERS, Sec.
Dated at Hastings, Mich., Dec. 9, 1913.

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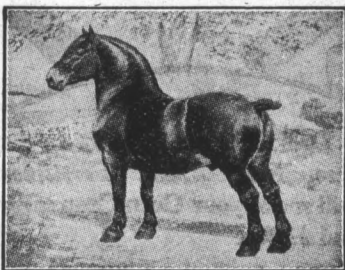
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6 years old and stud colt 17 months old, weight 1300 lbs.
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For Sale Reg. Percherons—1 stallion coming 2, one 6 years old, 1 two-yr.-old mare and two weanling fillies. J. M. Hicks & Sons, R. 2, St. Johns, Mich.



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Feed By-Products—A money-saving proposition. Ask Cotton Seed Meal, highest grade manufactured. Lined, Best Pulp, Gluten, Brewers, Distillers, Salvage Grains, Corn, Corn Flakes, Corn Meal, Mill Feeds, Screenings, Cull Beans, Tankage, Meat Meal, Lump Rock Salt, Wholesale Flour, The Bartlett Co., Michigan's Largest Feed Shippers, Jackson, Mich.

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THE INTERNATIONAL.

(Continued from First Page).

tion, not only on account of their good quality but as well for their peculiar and uniform marking, having the color and coat of the Angus and much of their type, with the white head markings of the Hereford and the poll of the black breed. In the three-year-old class the Angus breed won only first, the three other prizes all going to Hereford entries.

In the Hereford exhibits there were two carlot exhibits which merit special mention from the fact that they not only won the American Hereford specials for yearlings and two-year-olds, and first in their class from the Southwest District, but were as well shown as feeders in 1912, thus showing that prize winning feeders are the material from which prize winning fat steers can be made with the right kind of care and feed. The yearlings in this class were exhibited by J. G. Imboden, of Illinois, and the two-year-olds by Notre Dame University.

The Shorthorns landed a championship in the feeder division, the sweepstakes prize in this carlot class going to "AL" Neal, of Colorado, on a fine load of Shorthorn yearlings.

In the carlot sheep contest the western lambs were easy winners, the championship honors going to a very fine load of western lambs, bred and fed by Knollin & Finch, of Soda Springs, Idaho. Their quality was of a character to speak volumes for the improvement of mutton type in western lambs and their finish was a credit to the feeders. A Michigan entry in this class strongly commended by the judge was the top of two loads fed and exhibited by E. G. Read, of Richland, Mich., who won the grand championship last year. Another entry seriously considered for the high honor was a load of westerns, fed and exhibited by Miss Lois McFadden, of Flossmoor, Ill. While the carlot exhibits of native lambs were not up to the high standard attained by the westerns, they were good, and here again Michigan was a close competitor for first honors. The first premium in this class went to a well-finished load of Shropshires bred and fed by Miles & Reese, of Evansville, Wis., while Wm. Conley, Jr., won second on a load of shorn grade Shrops, and Henderson & Bruner, of Hickory, Pa., got third on an entry of shorn grade Dorsets.

In the carlot hog classes, in which there were an unusually large number of entries, the championship was won by I. D. King, of Burlington, Kas., on a load of Berkshires in the 350-lb. class, a load of Texas Poland Chinas being second in this class.

In the individual fat classes the entries were more numerous than ever before, and the individuals shown were fully up to the high International standard set in previous years. The grand championship in the steer class was again won by a grade Angus, this time a two-year-old that was last year's reserve championship calf. This steer, Glencarnock Victor 2nd, was exhibited by J. D. McGregor, of Brandon, Manitoba, who won the championship last year on Glencarnock Victor, both winners being from the same dam. A cut of this grand steer, together with a description of the methods used in finishing him will be published in the next issue.

In the fat wether class Canada also scored a victory with the Campbell entry, a grade Shropshire yearling of wonderful breadth and quality. The same exhibitor won last year on a pure-bred yearling Shrop.

Both grand championships in the fat barrow class were won by Poland Chinas, exhibited by John Francis & Sons, of Illinois. The grand champion barrow was 18 months old and weighed around 550 lbs. His chief competitor was an Iowa Berkshire of about the same weight and quality, the deciding factor being the dressing percentage.

The breeding classes in all departments were well filled with entries of superb quality, while the horse show was a magnificent spectacle in itself, and the evening entertainment features drew the usual large crowds, all contributing to the general opinion that this year's International was the "best ever."

A summary of the championships in the different classes, all of which are not available at this writing, will be published in the next issue, together with a brief account of the breed meetings held during the week and other information regarding this greatest of live stock shows, gleaned from the mass of results as of greatest interest to the reader.

LAMB SHOW AT THE LIVE STOCK MEETING.

A wether lamb show is to be held at the Twenty-third Annual Meeting of the Michigan Improved Live Stock Breeders' and Feeders' Association, January 14-15, 1914. Three prizes will be offered for the best lambs, either pure-bred or sired by pure-bred rams of each one of the following breeds: Southdown, Shropshire, Hampshire, Oxford, Dorset, Rambouillet, Cotswold, Lincoln, and Leicester, making in all 27 prizes to be competed for by native lambs. Three prizes will also be offered for the three best black-faced western lambs, and for the three best white-faced western lambs, and for the three best white western lambs.

For each of the above prizes the association will put up a handsome ribbon, and the State Breeders' Association representing some of the breeds will undoubtedly offer very liberal prizes for the best lambs of their breed.

For the three best lambs in the show, all first prize lambs competing, the Association will give a gold medal to the first, a silver medal to the second, and a bronze medal to the third.

Following the show on foot, which will be held Wednesday, January 14, the lambs will be slaughtered and all entries compete in a carcass contest, January 15, and for the three best carcasses, gold, silver and bronze medals will be awarded.

The carcasses will be disposed of by the officers of the Association and returns forwarded to exhibitors, or the carcasses returned, as exhibitor may desire.

Judges from out of the state will be secured and will pass on the merits of the lambs from a market standpoint.

No entrance fee will be required, but exhibitors must become members of the Association by paying the annual dues of one dollar. All entries must be in the hands of the secretary before December 15, 1913. Exhibitors will be limited to two entries in any one class or breed.

All entries will be fed, cared for, and slaughtered by the Association, the only expense to the exhibitor being that of shipping his animals to the secretary at Lansing.

The Barrow show last year was a decided success and we sincerely hope that breeders will take advantage of this opportunity to demonstrate to the public that their favorite breed is not only the best on foot but dresses out the best carcass.

In addition to the above the Michigan Hampshire Association will give prizes of five, four and three dollars for the first, second and third prize Hampshire lambs. If the best black-faced western lamb should be one sired by a pure-bred Hampshire ram, the American Hampshire Association will give a prize of ten dollars. If the three best lambs in the show are Hampshires the American Hampshire Association will give prizes of five, four and three dollars respectively for the first, second and third prize lambs.

For further information address,
GEO. A. BROWN, Sec'y,
East Lansing, Mich.

LIVE STOCK NEWS.

Continued liberal marketings of hogs in Chicago and other leading markets of the country has made a low scale of values, and recent prices were the lowest seen since last February. With an extremely large proportion of hogs of very light weights in the daily receipts, such offerings were strongly discriminated against by buyers, while pigs have shown declines of from 15¢ to 25¢ per 100 lbs. in the Chicago market on some recent days.

Numerous belated buying orders for feeding lambs have been placed with live stock commission firms doing business in the Chicago stock yards, including many such orders from Michigan farmers, as well as orders from parts of Ohio, New York and other states, but the lateness of the season renders it simply impossible to fill orders with anything like promptness. Meager offerings have ran the prices for prime feeding lambs up to \$7 per 100 lbs., the favorite weight running from 45 to 50 pounds. This demand promises to continue through December, with no increase in available offerings.

Horses were in better demand than usual last week, with numerous eastern buyers present, including some from Maine, and prices firmed up for the better class. There was no auction after Wednesday, the stables being turned over to the horse show in connection with the International. The best class of heavy drafters ruled firm at \$300-\$350 per head and upward, with few offered, while good, but lighter, drafters sold at \$235 and upward. Chunks weighing from 1250 to 1450 lbs. brought \$185-\$275, and little southern chunks weighing 900 to 1100 lbs. brought \$125-\$160. Inferior old horses sold slowly around \$75-\$100, and drivers were salable at \$125-\$225.

Dairy.

CONDUCTED BY COLON C. LILLIE.

BEST GRAIN RATION FOR GROWING HEIFERS.

I have some heifers two years old next spring and coming in at that time, and some that will be one year old then. Will Mr. Lillie give me the cheapest and best grain ration out of the following grains or feeds: Oats, ground, corn meal, bran, oil meal, cottonseed meal, gluten feed, corn and cob meal. For roughage I have mixed hay, cornstalks and straw. They are grade Holsteins and rather small. Could you give me an idea about how much grain to give them to a feed?

Wayne Co.

M. A. T.

With plenty of mixed hay and cornstalks and oat straw for a change, you have a good roughage ration for young growing heifers. It would be a nice thing of course, if you had corn silage, you cannot get a better succulent food, but you can get along without it. If you had mangle wurzels, or turnips, or something of that sort to give them once a day, it would be a great benefit also. With a liberal allowance of roughage young growing heifers do not need a great amount of grain, although I think it is profitable to feed them a small amount.

With the grains mentioned I think that taking everything into consideration, corn meal, ground oats, and wheat bran, equal parts by weight, would make probably the best ration that you could feed the heifers. I don't like to feed oil meal and cottonseed meal to young growing animals liberally because they are unbalanced food products. There isn't enough ash in them. Ground corn and oats are a splendid ration for growing animals. If you will add a little bran to increase the protein to balance up your roughage which is a little bit deficient, the ration will be almost ideal. Of course, if these heifers were dry cows, if they had reached their maturity, had fully developed and were simply dry, it would be a different proposition, but they are growing animals. They have got to have a sufficient amount of protein in the ration to do this. They could get along fairly well on just simply the roughage if they have plenty of hay, but they would have to eat so much more of it, that at the price of hay I believe it would pay to give them a little concentrated feed and not quite so much roughage. Wheat bran is one of the best grains that you can possibly feed young growing animals. It keeps their bowels in good condition and there is plenty of ash and mineral matter in it. The only objection is that everybody thinks it is so valuable that they are willing to pay liberally for it and this makes it high-priced. If you didn't want to feed quite so much bran you could cut out part of the bran and put in a little gluten feed in the place of it.

Now as to the amount to feed, they don't need a heavy grain ration. When we get our young cattle up in the fall we commence by giving them just a handful of grain and feed them that way for a week or two and then gradually increase it until we are giving them two or three pounds of grain a day, and this in addition to all the roughage they need is sufficient.

OAT AND PEA SILAGE.

Wishing a little information from some good authority, I ask you a few questions in regard to oat and pea silage, the answers of which will be appreciated very much. Do oats and peas make good silage? Will it keep as well as corn silage? How many tons can one expect per acre on land that will yield 50 to 70 bushels of oats, depending on the season. What amount of seed of each per acre? Clinton Co.

G. G. D.

Oats and peas can be made into silage and put in the silo when they are green. They ought to be run through an ensilage cutter and cut fine. No crop like this will make as good ensilage as corn, because they are hollow stemmed, and they contain a large amount of air. The probability is that when you put them into the silo they wouldn't contain a sufficient amount of moisture so that they would settle and pack as well as they ought to, and I would think it advisable that if you make silage out of them that you run a stream of water in at the same time. But they are not as good a silage crop as corn. Not only that, but they can be made into most excellent hay and it is better to put the corn crop into the silo and make the peas and oats into hay and feed them dry in that way. They will take the place of clover or alfalfa hay,

and I should much prefer to do this. Make the peas and oats into hay and put the corn into the silo. However, if you must put them into the silo be sure and put them in before they get too ripe; be sure that there is plenty of moisture, and be sure that they are well tramped, and they will make fairly good silage. With a heavy crop of peas and oats you ought to have five or six tons of green stuff to the acre.

Sowing peas and oats for silage or for hay, you ought to mix the seed equal parts by measure, that is, 60 lbs. of peas to 32 lbs. of oats, and then sow two and a half or three bushels per acre. If you make them into hay, cut them when the oats are in the milk. Don't wait too long. Make them as you would clover hay. Cut them down and rake them up and put them in crocks and leave them until they are cured and then draw them in and you will have excellent hay.

HAY FOR HORSES BUT NONE FOR COWS.

I have plenty of wheat straw, oat straw, hay and oats for my horses but none for the cows. I have about 2,000 baskets of corn, plenty of stalks and about 30 tons of corn silage. Have eight cows, six heifers, and six spring calves. Have chance to get 35c per basket for the corn and take dairy feed in return. I am feeding the dairy cows and heifers silage twice a day with cornstalks at noon and about 1 pound of oil meal and plenty of straw. Is that enough? I am feeding the milch cows silage with cottonseed meal, dairy feed, and about a half pound of oil meal night and morning and stalks and straw at noon. Can I improve on this ration? I am selling milk.

Kent Co.

G. H. T.

In the winter time farmers' horses usually do not have to do any more than enough to have good exercise, and there would usually be more profit in feeding the straw and cornstalks to the horses and giving the hay to the cows that are giving milk, rather than to feed the cows that are giving milk the straw and the horses the hay. But I am well aware of the fact that most people think the horses must have the best there is on the farm anyway, and it perhaps is all right. If you only give them what hay they will eat up clean and provide a grain ration in proportion and they can eat some of the straw as well, these will make an economical ration for the horses.

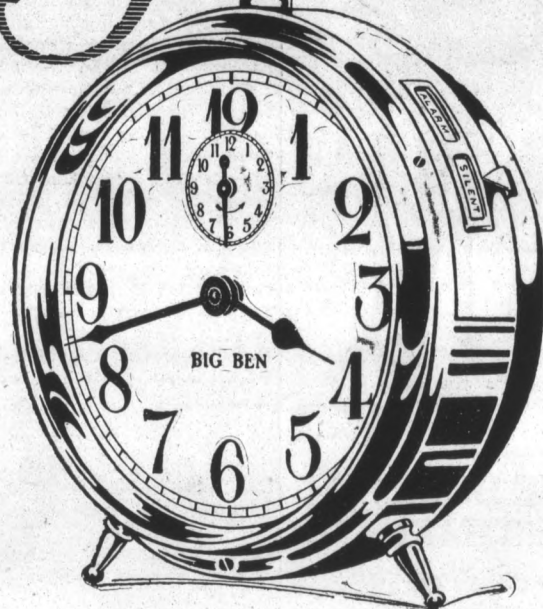
However, I have seen farmers that fed their horses altogether too much feed in the winter time when they were doing nothing. It was absolutely a waste of the feed. The horses were not as well off as they would have been if they had a lighter ration. A horse in the winter time doing scarcely nothing at all, don't need the food that he does in the summer time when he is working hard. He ought not to have so much.

On the other hand, a cow giving a good flow of milk ought to have a good liberal ration, because she is working. She is "in the harness" every day. She converts her feed into milk. You sell the milk and get the money. One can afford to feed a good dairy cow a liberal ration of well balanced foods, and, in fact, that is the only way to get very much money out of her. If you scrimp her she will take care of herself before she produces a maximum flow of milk.

I think the ration for dry cows is a very good one. The one pound of oil meal is rather low and a few weeks before they came fresh I believe I would gradually increase this to two pounds, but when they come in then, of course, they will have to have even more.

Where you are feeding quite liberally of oil meal and cottonseed meal, as you are, I doubt if it would pay you to trade your corn for dairy feed. I know nothing about these dairy feeds from actual experience because I never feed them. I have heard some people recommend them. But we know exactly what corn meal is and we know that it is a good concentrated feed, and if I did not have corn silage made from the whole corn and had to feed cornstalks, I would like to feed a little corn meal with the cornstalks so as to have the entire corn plant as a part of the ration, and I am of the opinion that if you would keep the corn meal in place of the dairy feed and use it with your cottonseed meal and your linseed meal that you would get just as good results as you will with the commercial feeds. Your cottonseed and oil meal are very rich in protein and they will help balance up a ration of corn meal, straw and cornstalks in good shape. The idea of a ration for cows giving milk is correct. You are feeding feeds that are rich in protein to balance up the feeds rich in carbohydrates. The only suggestion I would make is to feed corn meal in place of the dairy feeds.

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He is built in a live town for live wires. And his best work has been on the farm. Before-breakfast chores are started right on time when Big Ben time is set. He never oversleeps. He runs on time, rings on time and stays on time.

If your jeweler doesn't sell Big Ben, send a money order for \$2.50 to his makers—Westclox, LaSalle, Ill. He will come to your house by express or by parcel post, all charges prepaid.

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Annual State Horticultural Meeting

The forty-third annual meeting of the Michigan State Horticultural Society, which was held at Traverse City, December 2-3-4, was a decided success from every standpoint.

The value of the program was apparent from the very beginning, for one of the first talks given was one of the most valuable given before the society in years. The place of meeting was in itself interesting and was a good illustration of the newer religion, the practical and applied Christianity. The building was that of the Central Methodist Church, in which were rest rooms, a gymnasium, shower baths and other things of interest to its younger members. The attendance at all sessions was very good but would have been better if it had not been so difficult for those in the southern part of the state to get there. The interest manifested however, was of the very best and there were spirited discussions on all subjects.

No one subject predominated in interest, which is unusual at such meetings. Among the most prominent given attention were the subjects of spraying, thoroughness in spraying, pruning, marketing and advertising. The good interest shown all subjects is probably due to the fact that each speaker had his subject well in hand and had a message of value to present.

The meeting was opened with a talk by E. O. Ladd, of Old Mission, on the history of fruit growing in the Grand Traverse district. He stated that the first apple trees were from seed sown by the Indians. The first nursery stock was bought from a New York nursery and planted in 1860. His experience showed him that Baldwins and Greenings would not do well in low places in that region but that Duchess would. He traced the development of the fruit industry there from the old methods, such as banding for the codlin moth, to the present scientifically developed methods.

Mr. B. J. Case, of Sodus, N. Y., followed Mr. Ladd. His talk was meaty with good thought and suggestions. He stated at the opening of his address that we knew but little of our business and after he got through it was apparent to those in attendance that his statement was true in most cases. His talk was so full of valuable suggestions that an attempt to mention them in the short space available would not do them justice. In a future issue this talk will be given in full detail.

Opening the session in the afternoon, A. J. Rogers, of Beulah, gave an interesting talk on orchard fertilization. He compared the results of different experiment station tests and gave the value of the various fertilizer materials. He suggested that cultivation later than mid-summer would produce late wood growth which would be harmful. In the discussion one man brought out the value of sweet clover as a cover crop, in fact, he had found it better than vetch for that purpose. Mr. Rogers favored millet as a cover crop and also suggested plans for test plots by which one could determine the fertilizers the orchard needed.

Harvesting and Packing.

W. G. Farnsworth, of Waterville, Ohio, gave a valuable talk on the harvesting and packing of fruits. He stated that we should prepare for the harvesting time when we set the orchard. Varieties should be selected so as they will not ripen at the same time. The trees should be headed low and the old trees should be headed back to make picking easier and less expensive. Twenty-foot ladders were the longest used in his orchard. Thinning he found to increase the quality of the fruit and saved time and expense at harvesting time. He preferred padded baskets for picking as he found that the fruit was less bruised than when picked in bags. The time of harvesting depended upon the market. If for local market the fruit could be left on the trees longer than for a distant market. If possible, Mr. Farnsworth never picked when the weather was hot and muggy. If he did, he always put the fruit in crates and left it in the packing sheds to dry and cool. Honesty in packing, using attractive packages and advertising were very strongly urged by Mr. Farnsworth. In the discussion of this subject many interesting things were brought out. Grading machines and the Sulzer law being the most prominent. A discussion of prepared Bordeaux, lime-sulphur, soluble sulphur and other sprays was also interesting. The general opinion was that pre-

pared Bordeaux was not advisable. Favorable results with the soluble sulphur were given. Home-made Bordeaux was recommended for grapes and Russet apples. Lime-sulphur was the cause of green Russets which would not sell as well on the market as those with the characteristic russet skin. Lime-sulphur was preferred on apples, sour cherries and European plums. Self-boiled lime-sulphur was recommended as the only safe summer spray for peaches.

Fruit Laws.

In the evening Mr. Smythe, of Benton Harbor, explained the laws referring to packing, which were passed and put in force during the past season. The great trouble in enforcing the laws, he stated was the lack of power and public sentiment to back them up. He urged greater publicity of the laws and cited instances showing the great need of putting these laws in action. He also mentioned the weaknesses of the present nursery and orchard inspection laws, and after the subject was thoroughly discussed Mr. George Hawley was appointed as a committee of one to draft resolutions suggesting changes in this law. These resolutions and comment upon them, will be given in a later issue.

Prof. Pettit, entomologist of the Agricultural College, showed views of and described the relation of bees to fruit growing. He also showed slides of the tent caterpillar which has been quite serious in the northern part of the state. Prof. H. J. Eustace, horticulturist of the college, also presented lantern slides of orchard and plant diseases which were both interesting and instructive.

Mr. W. D. Bagley, of Old Mission, opened the Wednesday morning session with a paper, "Fruit Growing on Sand by a Sandy Farmer." His talk showed what grit and sand in a man will accomplish in bringing a veritable sand dune to productivity and profit. He did this by chucking humus into the sand hills, and then using other fertilizers. He started by throwing cornstalks on the land and turning them under. This he followed with rye and later with vetch. While Mr. Bagley has accomplished much on this land, he admitted that he would have preferred to buy land more fertile.

Prof. Eustace followed with a talk on the future of the cherry industry. He gave figures of the number of Montmorency cherry trees planted in the region around Traverse City and also, by figures, suggested the size of the probable crop in a few years. It was plainly shown that 3,000 or more pickers would be required to pick the crop which would have to be moved in about ten days. He suggested to the people of that vicinity that they had a problem which they should give serious consideration.

Financial Report.

During the business session which followed, the financial report showed that the society had a permanent fund of \$81,000, of which \$7,600 was of the T. T. Lyon memorial fund, and \$500 of the life member fund. The interest on this amount and the sum received from annual memberships has not been enough to carry on the work of the society as has been desired. During the time when the society received the state appropriation numerous auxiliary societies were organized and through them a large number of members at reduced rates were taken in. So, while the society has a large membership the receipts from this source have not been large. After some discussion a motion was made and carried which stated that only members of the society be admitted to the meeting.

The strongest horticultural societies in this country are run on this basis, and they have found that their membership has been held to normal and even increased by this plan. The fact that meetings were free to all made it such that many did not appreciate the programs. The list of speakers the society chose has often been superior to those of other like societies where a higher membership was charged and members only were admitted.

Election of Officers.

The election of officers which followed resulted as follows:

President, J. Pomeroy Munson, Grand Rapids; secretary, C. E. Bassett, Fennville; treasurer, Robert Smythe, Benton Harbor; executive committee, Frank A. Wilken, Detroit; O. E. Ladd, Old Mission; J. E. Merritt, Manistee.

All of the above were re-elected except the last two, who are new members on the executive board.

The students speaking' contest opened the afternoon session. Without exception the subjects were well selected, practical and well given. It was very difficult for the audience, who were the judges, to select the winners. The decision of the hearers was as follows:

1st. Ernest Hart, of Rochester, N. Y., whose subject was, "Does it Pay to Renovate Apple Orchards?"

2nd. J. A. Petrie, Kalamazoo, Mich., who spoke of the shot-hole fungus of the cherry.

3rd. A. L. Coons, Lowell, Mich., whose topic was, "Market preferences."

The students' judging contest was won by J. A. Petrie, with I. R. Notteware, of Bellaire, second, and H. S. Bird, of Lansing, and A. L. Coons, tied for third.

Of the growers exhibiting at the fruit hall, A. J. Rogers, of Beulah, got first prize; E. W. Lincoln, of Greenville, second, and F. H. Hemstreet, of Bellaire, was awarded third.

The chief speaker of the Wednesday afternoon session was Roland Morrill, famous for peaches, of Benton Harbor, who spoke on the present status of the peach industry. In his very able presentation which was interspersed with many terse philosophical truths, he showed that in Michigan we had nothing to fear from competition of other peach growing districts. Statistics showed that in the aggregate this state was heavily in the peach business, but individually it was not. He said that the Elberta reigned supreme in the peach business and wherever it could be grown successfully this industry became of commercial importance. The time of ripening of this variety in this state gave us the advantage over other parts of the country as that time is the usual canning time for the housewives. Mr. Morrill made a special plea for honesty in packing so that the state could maintain an eager demand for this fruit.

Banquet.

The annual banquet was held Wednesday evening in the church gymnasium and was in charge of the ladies of the church. After a most excellent physical feast, Mr. R. H. Sherwood, of Watervliet, as toastmaster, started a mental feast in which sense and nonsense were delightfully mixed. Mr. Sherwood is a born toastmaster and the list of speakers he presented held the interest of those present for over two hours. One thing strongly apparent, was the loyalty of the Traverse City people who responded to toasts to their part of the county. Such a home spirit is to be commended. When everyone gives a boost something has to move for the betterment of the locality.

Mr. Case, of New York, responded to the toast, "Associated Effort," and took biblical times to illustrate the value of such effort. Prof. Eustace spoke of the Agricultural College and urged that all be friendly to that institution. He invited friendly criticism as well as encouragement. Mr. Hart, a student at the college, spoke on the subject of unified effort. In his talk he paid high compliments to Prof. Eustace and his ability as an advisor and teacher. At the close of his toast Mr. Hart called on the M. A. C. men present to give the college yell, which certainly well illustrated unified effort.

Mr. Farnsworth asked that we give more attention to the human factor in agriculture and strongly urged that we give more attention to the most important crop of the county, the boys and girls. Mr. Roland Morrill gave a short sketch of his early experiences in the peach business, which was full of value and interest.

It was only after Mr. Sherwood accused him of eating peas with his knife and thereby giving the plant breeder, Mr. Burbank, the inspiration to breed a square pea that Mr. Bassett, our secretary, consented to say anything. After coming back at Mr. Sherwood in good form he urged improvements in ourselves and our way of doing things.

(Continued next week.)

TROUBLE DEPARTMENT.

Inasmuch as the Michigan Farmer desires to be of service to fruit grower and farmer, we will gladly answer questions on any phase of fruit growing; indeed, we will deem it a pleasure if we can be of assistance in solving any of the perplexing problems which may appear in the daily work of the fruit grower. Mr. Frank A. Wilken, who has for the past eight years been in charge of the South Haven Experiment Station and who is now on the Michigan Farmer staff, offers the benefits of his practical and scientific experience in fruit growing to subscribers.

A Successful Orchard Renovator.

Old orchards of about fifty trees are numerous. They are found on most all farms, where they usually have such a menial position as being an eyesore to the farm, serving as a place for some of the farm "junk," or as an exercise place for hogs and other farm stock. Well cared for and profitable farm orchards of this size are scarce, undoubtedly because most people believe them too small to bother with or too far gone to bring back. So when a big success of this kind is found, it is worthy of mention.

Frank Howard, of Berrien county, has made such a success. When he bought his farm it had the usual farm orchard on it which had about 54 trees in it, consisting of Baldwins, Spys, Greenings and Russets. Like most orchards of its kind, it was a hopeless case, but Mr. Howard is a firm believer in the possibilities of old orchards and in the saying, "Where there

reference to spraying, may seem too intense for the general orchardist to follow. It might be a matter of argument as to whether the extra sprayings he puts on give enough difference in results to pay for the trouble and expense they make. However, when a man can show the results Mr. Howard can, it leaves little room for argument, as results are the most convincing things a man can present. The least that can be said of Mr. Howard's method is that it pays better to err on the side of being too thorough—if such a thing is possible—than it does to be just a little careless in the work.

During the ten years—1901-1910 inclusive—Mr. Howard's apples brought him over \$6,000, or a little more than \$100 per tree, and during the past seventeen years his orchard has never failed to produce a crop. Except in 1901, when his crop amounted to 121 barrels, the figures have



A Strict Application of Scientific Principles to Production Brought Unusual Success to Mr. Howard, of Berrien County.

is life there is hope," so he started immediately at the process of renovation. As a result, he has made the orchard "come back," made it pay him a good profit, and has brought fame upon himself in the fruit district of the southwestern part of the state by his accomplishment.

His first procedure was to give the orchard a heavy pruning. He literally pruned the daylight into the trees, many of the tops being cut back ten to twelve feet. In this he took especial care to make all of the cuts slanting so that the water would drain off, and then thoroughly painted all the larger wounds. This was a wise precaution on his part, as due to the heavy cutting he did, many of the wounds would otherwise have rotted back. Water sprouts started freely the first year; these he kept well thinned out, leaving only those which were well placed for branches. It was an average of three years before most of these new branches started bearing.

On the subject of spraying, Mr. Howard is a crank. It was this fact, though, that made it possible for him to get such good results from his orchard. Like other successful orchardists, he realized that spraying is the most important factor in both orchard renovation and the growing of good fruit. For the first few years of his orchard work he sprayed four times. While he got very good results from that number of sprayings, he wanted still better, so he increased the number of applications to seven, and during the past nine years, he has sprayed eight times each year. Mr. Howard is very particular about getting his spray on at the right time, and will leave all other work to be on the job when that time is at hand.

The usual lime-sulphur scale spray is applied early in March. This is followed by two applications of copper-sulphate before the blossoming time. After the blossoms drop, arsenate of lead alone is used, as Mr. Howard believes that there is little use for a fungicide at this time. Ten days later he uses the lead and Bordeaux mixture. Other sprayings follow at intervals of about two weeks. For the control of the second brood of the codling moth he sprays twice, the first time about August 1, and the second about two weeks later. Mr. Howard has not used lime-sulphur as a summer fungicide, as he has had very satisfactory results with Bordeaux mixture.

Mr. Howard's methods, especially with

never been less than 225 barrels per year, and have run as high as 732 barrels. This maximum crop was raised in 1911, and brought \$1,830. For 1912 the crop was 250 barrels, netting \$500, and the past season's production was 500 barrels, which netted him \$1,325. The crops for the past three years were from only forty trees, as a few years ago Mr. Howard had to cut out some of the old timers. A fact that he should be proud of is that his apples have averaged him 90 per cent No. 1. One tree produced a crop of 28½ standard barrels of apples in 1911. This illustrates the productive possibilities of old trees under good care.

The results Mr. Howard has attained with his old trees show the possibilities that are hidden in old neglected orchards, and strongly suggest that many of us are neglecting our opportunities by not taking care of these old farm orchards. It also stands as an object lesson of what perseverance and thoroughness can accomplish.

CIVES.

Cives or chives are not often seen in the garden now, though they were common enough at one time. They are as easily grown as grass. All that is required is to set them out and leave them to care for themselves. They start to grow as soon as spring opens and are not long in producing an abundant supply of tender leaves which have the flavor of a mild onion. They can be used in a variety of ways, in soups, salads, or raw like young onion tops. The top only is used, the bulb being small and unfit for anything except for propagation. Cives make a pretty plant for a border. Growing thickly together, as they do, the tops furnish a mass of pleasing green from spring till fall. During the summer there is a yield of pretty purple blossoms which make cives worth growing for ornamental purposes alone. A little ground devoted to cives should give a good account of itself.

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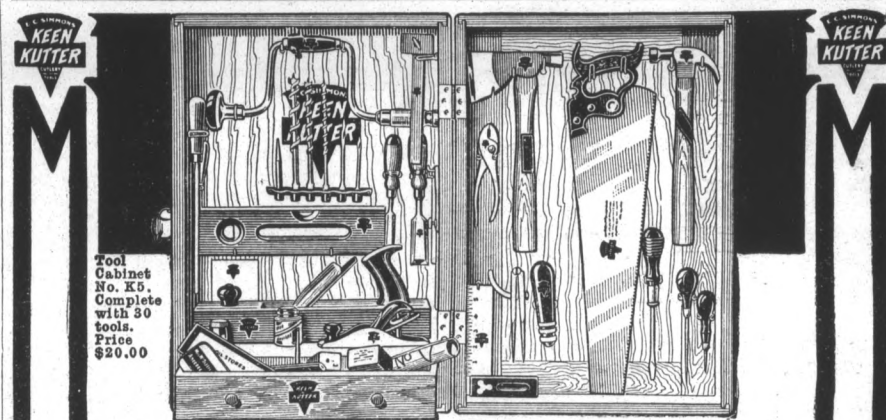
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DETROIT, DEC. 13, 1913.

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This is the season when every farmer should select his reading matter for the coming year. During the next few months he will have more leisure time to devote to reading and study than during the balance of the year, and that time should be improved to the best possible advantage. If it is so improved it will add to the profit, not only of next year's farming campaign, but to the work of succeeding years as well, thus making the winter season, from the standpoint of actual results, the most productive in the way of remuneration for personal effort of all the year for the farmer who works with his head as well as his hands. In preparing for this season of study the first step should be to subscribe for your own trade paper, the publication which devotes its energy exclusively to the needs of the farmers living in a limited field of circulation, thus making the matter published of immediate and certain interest to the farmers in that prescribed territory. The Michigan Farmer is a trade paper published exclusively for Michigan farmers and devoted entirely to their interests and needs, a concentration which is impractical for the paper seeking general circulation throughout the country. It will contain only matter of interest to Michigan readers, and helpful to them in the study of Michigan agriculture. It is the Michigan farmer's own trade paper, and the 50 cents invested in a year's subscription will be the best investment any Michigan farmer can make with a view of increasing his profits or bettering his prospects for the coming year.

CURRENT COMMENT.

Sheep Breeders Tackle the Dog Question. An important action was taken by several of the national sheep breeders' associations at their meetings held at Chicago last week, in the appointment of a joint committee to consider the dog problem and recommend adequate legislation which will be sought in the several states. A joint committee of this kind, composed of men representing the several national sheep breeders' associations will not only bring to the solution of this vexed question the experience of different states, but will, as well, form the nucleus of a powerful influence in forcing desirable and uniform legislation on this subject in the several states where the sheep industry is constantly menaced by the dog nuisance.

The depredations of dogs have ever been a menace to the sheep industry, and they have seemed to increase, rather than decrease, under modern conditions. Under our laws, as under the laws of most states, partial compensation can be secured by the owner of sheep which are killed by dogs, but this is secured only after much delay and difficulty and then does not compensate the owner of the flock for anything like the damage done.

Nor does it bring back the sheep, and in too many cases it does not even dispose of the dog or dogs responsible for the damage. Various remedies have been suggested and laws have been proposed for the betterment of present conditions, but they have been ineffective because there was no united influence behind them. This movement will supply that force and should enable the sheep owners of the country to secure the passage of laws in the several states which will afford adequate protection for their flocks.

Preventive, rather than remedial measures are needed, and until these are applied through adequate legislation, sheep owners will be morally justified in applying direct and effective preventive treatment to trespassing dogs.

Live Stock Freight Rates.

Another important action taken by the national breeders' associations meeting in Chicago during the International, was the pledging of funds, as suggested by the National Association of Record Societies, for the presentation to the Interstate Commerce Commission of a petition for a change in live stock rates and shipping contracts, particularly as related to less than carload shipments. Under present rates and regulations shippers are required to sign a contract in which the animals shipped are given a nominal valuation in order to get the minimum rate for shipment. If full valuation is given, the rate is automatically increased to an amount which is out of all proportion to the item of insurance, against accident necessarily assumed by the carrier, and the additional rate becomes a heavy burden on the shipper. In the past the courts of several states have held that inasmuch as this constituted a forced or compulsory contract it was not binding as against loss from accidental injury for which the carrier was responsible. Recently, however, the Federal Supreme Court has held that the contract is binding and that no more than the stated valuation can be recovered in the event of loss from any cause.

In view of this final interpretation of the law as applied to the present live stock shipping contract the national breeders' associations have pooled their interests in an attempt to get needed action by the Interstate Commerce Commission to relieve this condition. This is but another example of the benefits to be derived from effective organization. It is quite certain that individual shippers would find it much more difficult to secure a needed reform of this kind than will the association of the organizations with which they are affiliated. What is true in this case is equally true in any other line of effort in which farmers may be interested. The "answer" is more effective organization all along the line.

National Crop Associations.

The tendency of the day toward organization is perhaps more clearly shown in the organization of associations to promote certain staple crops, than in any other line of agricultural effort. During the present year at least two such organizations have been successfully launched. The first of these was the National Potato Association, organized to promote an improvement in every phase of potato growing and marketing. This organization was headed by men of national reputation in this line, which gave it a standing which has been productive of early results. Already Michigan potato growers have organized an auxiliary association, as reported in a recent issue of the Michigan Farmer, and beneficial results seem sure to follow in our state, where the potato is an important cash crop.

Last week a similar organization was effected at a meeting in Chicago to promote the growing of alfalfa throughout the country. This is called the National Alfalfa Growers' Association, and well known farmers and educators are included in its list of officers and directors. Among the directors are included the names of Dr. Eben Mumford, State Leader of Farm Management and Field Studies, and Colon C. Lillie, of Michigan. The aim of this organization, according to the constitution adopted, is "to create a more general interest in the growing and use of alfalfa; encourage its study as a forage crop, and that its great value to farm conditions in the United States may be more fully understood; to determine more economical ways of handling and feeding alfalfa, and to hold meetings that will encourage and better alfalfa growers." These are certainly worthy objects, and much good should come from the activities of an organization of this kind.

It is a matter for congratulation that

the farmers of Michigan will gain a direct benefit from two national organizations of this kind which have been promoted within the year. That such a benefit will accrue can hardly be doubted by anyone who has an adequate appreciation of the relation of these two crops to the prosperity and perpetuity of our agriculture.

One of the interesting features of the recent meeting of the Michigan State Association of Farmers' Clubs consisted of an address by a representative city "thinker" and a talk by a representative farmer in the same class. Each speaker was entirely frank in his expression as to how the average man in his class viewed those in the other class, and how he looked at some of the problems which are of interest to both, but which are viewed from different angles by each.

The unbiased listener to these addresses and the discussion which followed them, could not but be impressed with the fact that class differences of opinion between intelligent people are more generally due to a misunderstanding of the premises than to a difference in the standard of honesty or righteousness of the people themselves. It is a good thing for people as a class, as well as individuals to have an occasional opportunity to see themselves in the other fellow's mirror. The reflection will have a wholesome, if not altogether pleasing effect.

Perhaps in the ultimate solution of the problems of distribution, which are now engaging the attention of producers and consumers alike, some plan will be evolved which bring these two great economic classes into closer touch and enable each to better appreciate the difficulties to be met and overcome as well as the advantages enjoyed by the others. Any agency which will bring thinking city people and progressive country people together and contribute to a better common understanding of each other's point of view on economic, social and civic problems, will be helpful toward their right solution. It is undoubtedly a good thing for the members of any farmers' organization to occasionally listen to the views of their city brother, and vice versa.

Profit in Farming.

In another column of this issue the question, "What constitutes profit in farming?" is asked, and answered from the standpoint of one prominent farmer. Just now this question is engaging the attention of the Bureau of Farm Management, of the U. S. Department of Agriculture, and a survey of representative farms is being made in different sections of the country to determine, if possible, whether the average farm returns a profit, and if so, how much. This survey has included a number of farms in a representative Michigan community, and while the results have not yet been made public it has been intimated by some who are familiar with the situation that they will not be altogether flattering to our agriculture.

If, when viewed from the standpoint of the average farm, farming is not an especially profitable business, this should be no cause for discouragement. Neither is merchandising or manufacturing or commerce. In fact, there are a greater percentage of absolute failures in other lines than is the case with farming, yet there are many notable successes as well. The same is true with farming, profit in which depends, perhaps to an even greater extent upon the personal equation, notwithstanding the many factors involved over which the farmer has no control. This is, indeed, an interesting study and one which each and everyone of us can pursue with profit.

HOW MANY DO YOU KNOW?

Here is a little lesson in advertising and psychology.

Turn through this paper and see what percentage of the advertisers you have ever noticed before. Most of them have been appearing in this paper for some time, many of them for years.

The things we see casually make little or no impression upon us. Most of these advertisements have passed under your eye at some time, but have left no mark on your memory.

Try the suggestion and see what is your percentage of acquaintance.

Now is a good time to send in your renewal order for Michigan Farmer, as your order can be given more prompt attention than during the big rush about Jan. 1. Make your order for five years—it is only \$2.00—and it will save you the trouble and expense of remitting each year.

HAPPENINGS OF THE WEEK.

National.

Wireless telegraph is probably to be credited with another saving of human life. On Sunday morning 197 persons were taken from the steamer Rio Grande by the steamer Swanmore off the coast of Virginia while the former boat was on fire and thought to be in great danger. The Swanmore was brought to the distressed vessel by means of a wireless message.

Three men were slain in the copper strike zone Sunday morning. While the assassins have not been apprehended it is the general opinion that their crime was instigated by agitators and several arrests have been made. The victims were shot while sleeping in a boarding house. They were employed by the mining companies.

Montgomery Ward, multi-millionaire, and father of the mail order business, died at his home in Highland Park, Ill., Sunday, following an injury sustained on a running board of an automobile two years ago. He was 70 years of age. His continuous fight since 1887 to keep the Chicago lake front free from occupation by commercial concerns, and as a place of beauty, won him the name of "Watch-dog of Chicago's Lake Front."

There are reasons to believe that the state of New Jersey will establish an innovation in progressive legislation by inaugurating a new state board of revenue for the purpose of revising the taxation methods of the state and placing the spending of the funds under the management of experts. The scheme will be carefully watched should the Legislature of that state adopt the plan in its present form.

The cold wave was felt keenly over the north central states Sunday. At Chicago the temperature dropped 32 degrees, accompanied by high winds and snow. Cleveland again suffered from the blizzard, the wind reaching a velocity of 48 miles an hour. Fortunately most of the boats on the great lakes were in port.

Texas residents along the Brazos valley have suffered from floods the past fortnight. It is estimated that from 700 to 1000 persons are homeless as the result of the high waters. The cold wave has intensified the suffering.

It has been decided by the treasury department at Washington that only such persons as come under the provisions of the income tax law will be required to make a report to the government on the amount of their income. The officials do not deny their right to ask all persons to make reports, but agreed that such a procedure would entail too much unnecessary and expensive clerical work.

The big snow storm which swept Colorado last week has been unequalled in the memory of the oldest citizens. From different sources it is reported that 40 persons have died the result of exposure and other causes indirectly due to the storm. The snow ranges from three to eight feet in depth. Traffic of all kinds is at a standstill. There is prospect for a coal famine. Schools, theaters and business in general have been suspended.

Col. Theodore Roosevelt, who is making a tour of South America, arrived in Buenos Aires December 4.

While affairs in Indianapolis are somewhat relieved from the hardships brought on by the strike of the teamsters of that city, matters between the drivers and their employers have not been adjusted.

Foreign.

Mrs. Emmeline Pankhurst, the English suffragette, who recently returned to England from a lecture tour of the United States and was arrested upon arrival, has again been released following a hunger strike.

Last week the rebels of Mexico captured Chihuahua, the capital of the Mexican state by the same name. After driving the federal forces from the city a command was directed to capture the entire federal army before the latter succeeded in reaching the border of the United States. This rebel success, together with others, seems to make the situation in that country more favorable to the rebel following, a conclusion that is further substantiated by reports that Huerta is preparing to leave the country on short notice.

Political conditions in Germany are disturbed. Recently the government failed to secure the confidence of the reichstag by the overwhelming vote of 293 to 54. This attitude of the legislative body will probably mean the downfall of Chancellor Hollweg and his government.

Earthquake shocks have again been felt in the province of Aymaraes, of the southern part of Peru where a month ago 200 lives were lost during a series of disturbances. Details of the extent of the latest shock have not been received but it is believed that further loss of property and lives has resulted.

Elections are to be held in Santo Domingo, December 15, and there is some apprehension on the part of officials at Washington as to the possible outcome of the bitter political contest now on.

The situation in Ireland seems to be increasing in seriousness. It is claimed that both the Ulster and the Irish adherents are preparing for the worst, and to keep a better hand on the situation the British government has issued a proclamation prohibiting the importation of arms into the island. On the other hand, the acceptance by Premier Asquith of the suggestions of Sir Edward Carson—that the settlement by the government will not be humiliating to Ulster, that Ulster's treatment will not be different than that meted out to other parts of the United Kingdom, that Ulster may retain full protection of the imperial parliament and that the home rule bill must not be such as to lead to the ultimate separation of Ulster from Great Britain—the acceptance of these suggestions is counted a long step toward the peaceful settlement of the political crisis now awaiting the definite action of the administration.

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

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

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

Finding a Fortune in Fly Farming.

By HOWARD C. KEGLEY.

AN IRCASTLE architect she would probably be called if her plan had not worked out successfully. Dreamer she was, no doubt, for that is what new-departurists are generally termed. Certain it is, though, that when Miss Ximena McGlashan, a California girl of 18, laid aside her Normal school diploma, abandoned her plan to teach, and undertook butterfly farming, she started something exceedingly worth while and uncovered a surprisingly rich "pay streak."

Miss McGlashan took hold of the idea June 15, 1912, and on the first day of the following month she shipped 1,500 moths and butterflies, and received \$75 for them. During the next ten weeks she shipped



Method of taking Moth in Cyanide Bottle.

10,400 specimens to market at a flat rate of five cents each. That lot added \$520 to her bank account.

Numerous markets for butterflies have developed since this little California girl went into the business, but she sells nearly all of her output to one customer—a wealthy eastern physician who is reputed to have the largest and most valuable private collection of butterflies in the world. This man has offered Miss McGlashan, for her 1913 crop, more than an average bank president's salary.

Since the day this little butterfly farm-ette set out in pursuit of winged beauties with which to capitalize her ranch, high up on the side of the Sierra Nevadas, she has converted her energies into profits which have averaged over \$50 per week, and this year her weekly income, it seems certain, will be nearly twice that amount. Moreover, since she took up the business her efforts have been so noteworthy that hundreds of people in all parts of the country—not only here, but in Europe, too—have adopted the idea, and many have already established themselves in the business.

"Fly" farming might have come into its own long ago had not the few who knew how to handle the winged beauties bottled up their information and kept it hidden from the outside world. When Miss McGlashan tackled it she sought expert advice. Failing to get it, she went to the library and borrowed "Poole's Index," the "Butterfly Book" and the "Moth Book." With these



Female Moths are fed Plant Leaves while Laying Eggs in Paper Bags.



Examining Eggs in Test-tubes to see if any have hatched.



Feeding Larvae in Bottles, Jars, Boxes and Barrels, offering various Plant Foods to learn Preference.

authorities at hand she made a quick excursion into butterflyland. It didn't take her long to solve the mysteries of the game, and she is now "one too many" for the entomological few who were her stumbling blocks in the beginning. Also, she has found it pleasant and profitable.

As soon as she found that the idea was worth while this girl began passing the good word along. Too generous to keep a "fat find" to herself, she gave many interested persons the key to her success, and today there are ambitious butterfly farmers all over the land. In the past ten months Miss McGlashan has received letters from 869 people who have declared their intention of going into the



Packing the Butterflies for Shipment.

business. In one morning's mail, not a great while ago, she received letters from interested parties in Mississippi, Missouri, Arkansas, New Mexico and far-away Italy. Also a money order for a parcel post shipment of specimens.

Theoretically, "fly" farming sounds like an occupation doomed to disaster in any place less sacred and secluded than the Garden of Eden, but in real fact it is practical in every phase.

Miss McGlashan's farm is a semi-perpendicular bit of acreage, mile-high, and well suited for an airship union depot site, insofar as altitude is concerned. Last winter there were exciting ski-races and enjoyable ice-skating tournaments in the valley below her hearthside, and outside the walls of her butterfly incubator house three feet of snow lay on the ground for many weeks. So it is perfectly safe to say that what this young woman has accomplished in California others can do most anywhere south of Baffin Bay.

Moreover, the enterprise offers almost unlimited possibilities. Every fence corner, pond-edge and hog-wallow in the land affords its butterflies. Every orchard has its moths. Hundreds of specimens lurk in every vale, on every hill, and it is possible for enterprising persons to convert this hitherto wasted material into perfectly good money. Briefly, Miss McGlashan hands over the key to her success, in a paragraph:

"There isn't much to be made by catching butterflies and selling them. One must

farm them for profit. Catch hundreds and raise hundreds of thousands!"

The wisdom of her words is evident, for the average female butterfly deposits from 100 to 300 eggs during its laying period.

By day Miss McGlashan catches "flies" with a net. She gathers eggs, larvae and cocoons from trees, flowers and shrubbery at night. Female "flies" she distinguishes from males by the shape of their bodies. The female is round, and fat with eggs. The body of the male is slender, and ordinarily terminates with a tuft of feathers.

Stocking the farm is a simple task. It may be done quickly by the sugaring process.

Mixing one quart of stale lager beer, one quart of dark brown sugar and one-half pint of Jamaica rum, the butterfly farmer takes a whitewash brush, or an old broom, and starts over her sugar route along the Truckee river, smearing the mixture on trees, fences, stumps and out-buildings. White cloth, sugared and tacked to trees, will often attract specimens which cannot be caught in any other way. Summer and early fall are the best seasons for sugaring.

As dusk deepens the farmer begins searching for "flies," which term includes both butterflies and moths. If there is much wind the "flies" will seek the sheltered side of their haunts, so it is well to note the direction of the wind before sugaring a route.

The main things needed in sugaring are cyanide bottles, entomological forceps, a carbide miner's lamp, and some paper bags.

Take a strong bullseye lantern, approach the sugaring district at nightfall, blind the "flies" with the light, and then capture them by holding a wide-mouthed cyanide bottle under them and tapping them on the head with the forceps until they fall.

Cyanide is a powerful anaesthetic, and in such cyanide bottles as any druggist can rig up or such as can be easily home-made after the know-how is extracted from a butterfly book, the "flies" can be carried for about 15 minutes, at the end of which time they must be removed, else they will succumb. It is well to have one big bottle for a "morgue."

After capturing numerous specimens, pour them upon a paper and sort them. Place the damaged females in paper bags for breeding purposes, liberate the damaged males, and imprison the perfect specimens in the "morgue" for sale stock.

The work of mounting specimens is easy. Sheet cork or linoleum may be glued into cigar boxes, and the "flies" may be fastened therein by means of long, entomological pins manipulated by the forceps. Never handle a specimen by hand. To do so will render it unsalable. Pack the cigar boxes with excelsior so they will ship safely.

To catch caterpillars at night, spread newspapers or sheets under the bushes and beat the greenery with a stick. Place the catch in jars and assist them in taking nature's course to butterflyland.

Captive female butterflies will lay only when confined in gauze or paper bags containing their particular kind of plant food. Females should be fed each day with bits of dried apple soaked in honeyed and sugared water. Moths will deposit their eggs inside any box or bag. Place the eggs in test-tubes kept securely corked, and examine microscopically each day. Being impervious to cold, the eggs will keep for a long time. They should be kept in a cool place during the winter months, so that they will not hatch until their plant foods are ready for them.

Caterpillars will breed in a fruit or candy jar or a big barrel over which cloth can be stretched. Three inches of dirt or leaf mold should cover the bottom of each such caterpillar hatchery, and suitable plant food should be fed to the larvae each day. Some will eat one thing and some will choose the opposite. Introduce into the test-tubes, jars or barrels, bits of various kinds of plant leaves till their favorite food is discovered. Then feed that. The reading of a book on butterflies, the exercise of common sense in handling "flies" and eggs, and the patience to experiment for a few weeks, will make a butterfly farmer out of any earnest amateur.

Says Miss McGlashan:

"Scientific study is not necessary at first. Some very successful 'fly' farmers do not know the names of the insects they capture. At my home, nearly 7,000 feet above those who are on the level, I developed 'flies' into a profitable enterprise. Dollars may simply be plucked from bushes in my line of work. Master

the financial and experimental side of the industry, and study the scientific side of it during the winter, when your stock is hibernating."

Last fall when three feet of snow put her farm in cold storage, Miss McGlashan had more than 20,000 moth and butterfly eggs stored in the cellar. They hatched last spring. She has taken more than 100 larvae from a single bush in ten minutes, has caught as many as 600 "flies" in a night, and has hatched more than 500 "fly" eggs in a day. On her mile-high farm she raises several kinds of butterflies and one variety of beetles that bring \$5 per specimen.

Any druggist, or an entomological book will explain the making of a cheap cyanide equipment. The remainder of the "fly" farmer's outfit is inexpensive, and easy to acquire. A "net" may be made with a loop of number nine wire, a tin ferule and a bamboo handle, and a net made of bobinet or other light, gauzy material. The cost of a butterfly-farming outfit is summed up as follows:

Material for net	\$.10
1 sq. foot insect cork for boxes.....	.25
1 gal. sugaring mixture.....	.50
1 pair entomological forceps.....	.50

1 pound of lantern carbide.....	.10
1 dozen small test tubes for eggs.....	.25
1,000 entomological pins	1.25
1 Baldwin miner's lamp	2.00
Total	\$4.95

Where to find a market for "flies" is the easiest question to answer. Miss McGlashan could sell all of her crop to one buyer if she chose to do so. Last winter a justly-famous Philadelphia department store paid 50 cents each for 500 winged beauties to liberate in a window display of dress goods. The big tourist hotels gladly buy specimens to liberate in their dining-rooms on special occasions. Fashionable society clamors for them to use in decorating for various kinds of social functions. Jewelry manufacturers buy them by the thousands for use in making "butterfly jewelry," and "flies" for this purpose need not be absolutely perfect, either. Aside from the markets herein mentioned, colleges and preparatory schools purchase countless specimens for laboratory work.

Butterfly farming threatens to develop into a very extensive as well as profitable business. It is practically a "new wrinkle" on the face of the earth.



Peggy to the Rescue.

By ALTA LAWSON LITTELL.

IT'S the last time," said Jack darily, kicking a frozen clump of earth savagely as he hurried along to school. "Just let him come late once more, that's all. Just let him."

"What did father tell you about taking care of your shoes," reproved Peggy, "and what'll you do if he is late?"

"What'll we do?" threatened Jack. "You just wait and see what we fellows'll do. We'll lay for him after school and settle with him. Here we've missed our Friday half-holiday for four weeks now just on account of that Hunky being late a morning each week. Why can't he come on time like us Americans? He knows we'll get the half day off if no one is absent or tardy; we boys explained it all to him. Yet he just deliberately loses it for us every week. We might forgive him once or twice, but this thing has gone far enough."

"Oh, Jack, you wouldn't hurt him would you?" pleaded Peggy, anxiously. "He looks scared all the time. Besides, you know what Miss Goodrich said about America's being the home of the oppressed and the melting kettle of the nations."

"Oh, no, we won't hurt him any," jeered Jack. "We'll just give him a sack of candy and a bouquet and ask him if he won't please try to do better next time. We'll make that young foreigner think that oppression is out of date with us and that we don't intend to be downtrodden by fellows that can't get to school on time. What business has he here, anyway, in Bud Simmons's home?"

"He isn't to blame if Bud Simmons's father lost his farm," said Peggy. "You know father said if Bud's father had been as thrifty as this foreigner and hadn't been swapping horses all the time he never would have lost the farm."

"Well, anyway, we're not going to lose another half-holiday on that Jo Konarz' account," said Jack. "America for the Americans, I say." He raced off shouting, "Hi, there, Bill," to a boy who had just come out of a farm house ahead of them, entirely forgetting that his own grandfather had left County Cork just 50 years ago with his extra socks tied up in a handkerchief.

All through the day's session Peggy's eyes kept wandering to the stolid faced Jo who had just come among them. He was the one strange element in the school and the children could not get used to his odd ways, broken English, and the way he shrugged his shoulders and spread out his hands when he could not understand them. In fact, they had made no particular effort to understand him or to make him understand them. With the heartlessness of extreme youth they simply ignored him, partly because he was foreign and partly because they resented

his being there in the place of their dearly beloved Bud Simmons. Peggy, alone, had grasped dimly the meaning of the talk Miss Goodrich gave on America's opportunity, and wondered if there was not some opportunity for action right there in the Eaton school.

She watched Jo stump off down the road at night, his impassive face giving no sign that he saw the dark looks of the boys or heard their shouts of "Hunky," "Beet-Weeder," "Spoil-Sport." Peggy and a few of the girls tried to stop the shouts but for the most part the girls urged the boys to "get even."

"I suppose the boys wouldn't kill him," mused Peggy, "they wouldn't even dare to hurt him very much, but they might scare him so he wouldn't come to school and it would be too bad for him not to learn our language. I wonder if I could do something. You're always reading about someone doing something in a story, but when it comes right down to doing it, that's another story. I wonder if I talked to him if it would do any good? Jack said they explained to him, but I know how boys explain to each other. I'll bet they told him they'd bump his head if he was late again, and that scared him or made him mad so he doesn't care. Women and girls are ever so much more tactful," she concluded sagely. "I believe I'll try."

With this virtuous intention Peggy broke into a trot.

But Jo, on looking over his shoulder and seeing a girl running after him, took to his heels and soon disappeared in his father's barn. Peggy, though distressingly timid at heart, never flinched from a thing she had decided she ought to do, and was not to be beaten. She turned into the yard, called Jo two or three times and, when he did not come out, knocked on the kitchen door which she had so often entered when Bud Simmons lived there. The door opened a crack and Mrs. Konarz peered out.

"Good morning—I mean good afternoon," said Peggotty, politely. "I called to ask why Jo can't get to school on time?"

But Mrs. Konarz only stared and gave the shrug with which Jo so often favored the school.

"Stupid," thought Peggy; "I knew she couldn't speak a word of American, and there's that Jo peeking out at me through a crack in the barn and I suppose he won't budge a step till I leave. Yes, he shall, too," she vowed determinedly. "We Americans have never been beaten yet by foreign rebels and I'm not going to begin."

Turning to the barn she pointed and said, "Jo." Mrs. Konarz evidently understood that her son was within and could serve as interpreter, so she opened

the door and poured forth a flood of language that left Peggy standing in breathless admiration and brought Jo sulkily forth. Then, having further addressed her son at length, Mrs. Konarz slammed the door apparently well-satisfied with her efforts.

Now that she was face to face with the boy, Peggotty didn't know how to begin. She had never talked to him, for, though she was determined enough once she had made up her mind to a thing, she was naturally shy. She almost decided to offer him the apple left in her dinner pail and take to her heels. Then she considered how silly that would be and stood her ground. "Why can't you get to school on time, Jo?" she began.

Jo regarded her stupidly and shrugged his shoulders.

"Dear me, now he's going to be contrary, like he is with Miss Goodrich sometimes," thought Peggy. "I know he understood me, and he's just got to answer."

Then began a battle of wills, the determined, quick-witted little American girl, against the ignorantly stubborn, slow-minded Hungarian lad. Jo, suspecting a plot in everything, fearing everyone of this alien race, was determined to say nothing which would incriminate him. Peggy, anxious to save this boy a drubbing if she could do it, was determined to show him that he must get to school on time. More than once Peggy, exasperated by Jo's stubbornness and the irritating shrugging of his shoulders, was on the point of giving up and letting the boys settle with him. But she had a strong streak of that same stubbornness herself, and was enough of a dreamer to want to carry out those vague ideals which had been planted by Miss Goodrich's earnest talk on the duty of America to her adopted children. In the end, the better trained mind conquered and it was a very much excited Peggy who dashed into her own kitchen an hour later to explain her tardiness to her mother and Jo's similar failing to Jack, all in the same breath.

"He has to milk eight cows and his father is sick in bed and there's the pigs and the horses to take care of. I stopped to see why Jo was late to school, mother dear, and if you boys dare to touch him, I'll have father tend to you, so there!" she panted. "You ought to be ashamed of yourself to pitch into a poor boy who is anxious to learn our language and only has cabbage soup to eat at night, Jack Ryan. What is this country for, I'd like to know."

"Aw, how did we know he had so much to do," said Jack crossly. "He never talks to us."

"I guess he talks to you as much as you talk to him," said Peggy. "I'll set the table as soon as I wash my hands, mumsy." And, humming "My country, 'tis of thee," Peggy bustled about the kitchen making up for lost time.

It was with much satisfaction that Peggy heard Jack at the 'phone as she dried the supper dishes.

"I say, Bill, we'll have to call off that battle with the foreigner," he said. "Peg stopped there tonight and he's in bad luck. His father is sick and he has all the chores to do. Don't get anything to eat but cabbage soup, either, Peg says. Can you beat it?"

There was a pause; then, "Sure I could help with the milking. You call up some of the other fellows and we'll meet there tomorrow morning at seven o'clock. That ought to get him around on time. So long."

"Well, we're sure of one Friday afternoon," mused Peggy in the kitchen. And she dried the dishes with a satisfied smile.

Editor's Note.—This is the first number in a series of young folks' short stories. Make the acquaintance of those interesting characters, Jack and Peggy, preparatory to enjoying the second number—a Christmas tale—which will appear in the next issue.

THE GREAT GIFT.

BY ARTHUR W. PEACHE.

There is a gift that each must give himself;
Gold cannot buy it for it has no price;
It does not fade with years, it makes of earth
For one who has it a small paradise.

Wise is he who gives himself this gift
When he is young, for joy it can impart
To all his life and others who know him:
It is a simple gift—a sunny heart!

CHANTICLEER AND SIR REYNARD.

BY ALONZO RICE.

Who closes eyes, ill luck will sure betide,
When he should keep them open; but,
Worse luck attends on him who opens wide
His mouth when he should keep it shut!

Corn-stalk Furniture for Doll's House.

By MARGARET P. BIGGS.

The doll house and its furniture brings to mind a very happy time when we were children on the farm. It was in the fall of the year, while the corn was being husked and the stalks drawn to the barn for winter use, that we children busied ourselves taking off the three or four top joints. From this we cut the tassel and stripped off the leaves; then with a ruler, a sharp knife, a paper of pins and a small piece of hardwood we commenced the making of our doll furniture. If the stalks are still green and juicy it is best to dry them thoroughly to prevent the shrinkage common to all unseasoned material.

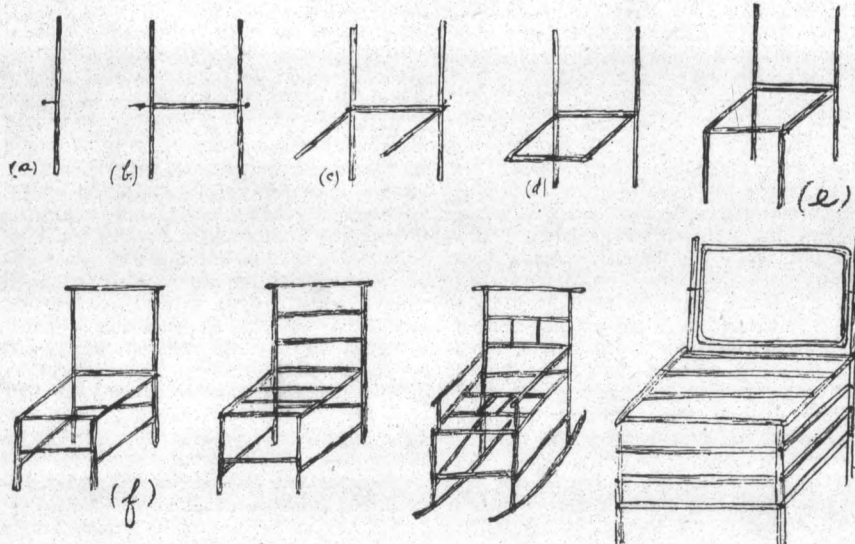
The ruler is necessary that every piece

stalks for rockers, or by making the back a little higher and putting on arms.

With this material you can make almost any piece of furniture. We made a bedroom set and put on the dresser a little mirror that swung on pins.

With a little ingenuity and a number of cornstalks you can soon furnish a doll's house. The materials are easily gotten, for no farm is without corn, and even in the small city gardens many people have a small corn patch. Pins are the easiest to work with, but small splinters of wood or pieces of toothpicks make more attractive furniture.

Children eight and nine years old can



be cut to exact measurement. The sharp knife is used for cutting the stalk, and it is very essential that the material be cut evenly, else your furniture will not stand straight. The hardwood will serve as the cutting block. The pins are used to fasten the pieces together, and also decorate the articles.

About the first piece of furniture needed is a chair. We will assort the stalks and get the materials as nearly of a size and color as we can. For the common chair, cut two pieces 4 in. long and ten pieces 2 in., four 1½ in. and one 2½ in. long. Now take your 4-in. pieces and put a pin through the middle of each, 2½ in. from the end intended to be uppermost, as indicated at (a) in the accompanying illustration. Next put one of the 2-in. pieces lengthwise on the pins, being careful to run the pins straight through the stalk, as at (b). This ties the two 4-in. pieces together; then put two pins through the 4-in. pieces where the 2-in. piece is fastened, as at (c); (this means that two pins in the 4-in. piece must cross, or come very near each other, and it requires careful work to keep from splitting the stalk); now run two 2-in. pieces on these pins and your chair looks like (c); pin these sides together with another 2-in. piece and you have (d). The next step

do this as well as grown-ups. Just try it. A set of this furniture would gladden the heart of any girl at Christmas time.

SPICE, THE SHOPPER.

BY M. PELTON WHITE.

Spice and Allspice were two puppy brothers belonging to Wally Walker. They were fat and round and soft and black and silky and looked as much alike as two peas in a pod.

I know you're asking this very minute how they came to have such queer names, and I'm going to tell you right away, for I'm sure you'd never guess in an age and a day. It was because they nipped and bit Wally—sometimes making the tears come in his eyes—with their wee sharp needle baby teeth, just the way cloves, ginger, pepper and the other spices nipped and bit his tongue. Oh, no, I don't mean to say the puppies ever bit Wally's tongue, though I haven't a doubt they would have had they been given the chance.

"What's the matter?" inquired Mrs. Walker as she noticed Wally rubbing a little mark left by a puppy tooth.

"It stings like spice," complained the boy.

"Suppose we call him Spice," laughed



Spice, the Shopper, learning to carry his Market Basket.

(e) is to put the front legs in place, and these are the 1½-in. pieces. Your chair will then be very shaky and dilapidated. Now pin your 2½-in. piece across the top of the back, allowing the ends to project ½ in., (f). The next move will be to fasten the legs together with the rounds, placing the ones on the sides a little lower than the ones at the front and back (this will make the chair firm and strong) and you have (f). Now with two pieces in the seat and two in the back, as in (g), your plain chair is completed. This style of chair is the simplest and easiest made.

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his mother; Wally laughed, too, and thought it a very good name.

"But what shall we call the other pup—he's all spice, too!"

"Call him Allspice," advised Mrs. Walker. And then you may be sure Wally did laugh.

But I'm quite forgetting the story I started to tell you—how Spice learned to shop and the funny trick he did one day.

While he was still a young dog Wally taught him to carry a basket, one of those small grape baskets. Of course, at first he wanted to chew the handle and tear it to pieces. But his master scolded

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him and took the basket away from him each time he acted badly, so the dog soon knew what was expected of him.

Whenever any of the family went to market Spice was usually invited to go along. "Want to go to the store?" Wally would ask him, and Spice would wag his tail—a dog's way of showing pleasure—and hurry to the back porch for his basket, which was kept on a bench where he could reach it.

Once Jane, the maid, put the refuse from the vegetables she was cleaning for dinner into the basket, intending to dump the waste into the garbage can later. Mrs. Walker wanted something from the store and sent Wally for it. Of course, Wally invited Spice to go with him. The dog scampered in great haste to the bench for his precious basket. It was full to overflowing, even the handle was covered up. Though he pawed and whined and nosed it, he couldn't get a good hold.

Wally was waiting at the front door and whistled for the dog to hurry. Poor Spice! He rushed to his master and gave a little yelp. But Wally didn't understand and made him go back.

Catching hold of the basket with his teeth the dog managed to drag it to the front door, leaving a trail of potato peelings, tomato skins and corn husks behind him. Jane was quite out of sorts, but Mrs. Walker said the dog should not be punished. He had done the best he knew, which was what he had been taught to do.

But not long afterward Spice did a trick that no one had taught him. During the hot August weather the Walker family ate very little meat. Everyone seemed to forget that a dog likes a big bone now and then to sharpen his teeth on. A bone is as good for a dog's teeth as a nice hard crisp crust of bread is for your own. It keeps them firm and strong.

Each morning Spice, carrying the little basket, trotted to market, following close

at the heels of Mrs. Walker and Wally. As usual they went to the grocery store first. But what was this? Spice didn't know what to make of it. Why didn't they go to the shop next door where the man in white apron and coat put brown paper packages in his basket? The dog knew well enough those brown papers held meat. Knew, too, that some of it belonged to him; yet he never nosed them, or stopped to talk to other dogs on the way home. Sometimes a strange dog would try to stop him, but a deep growl usually warned the intruder to be off.

Several times Spice tried to lead the way to the butcher shop but was always called back. However, one morning when Mrs. Walker was buying some corn and showing Wally how to tell when the ears were fresh and good, Spice slipped away. They whistled and called, all to no purpose. Just as they started for home the dog came tearing out of the butcher shop. He hurried to his master and dropped the basket at his feet. In it was a brown paper package.

The butcher stood at the door of his shop, laughing heartily. He said the dog came into his place and followed him about while he was waiting on a customer, whining and making a great fuss. At last the butcher wrapped up a bone and put it in the basket. Away went Spice.

Mrs. Walker said she thought the dog could be taught to go to market himself. So the next day she wrote a note, wrapped it about a coin, put it in Spice's basket and sent him out with it. Sure enough, the dog went directly to the market, returning shortly with the meat in the basket.

Little boy, little girl, if you should ever happen to be in Wally Walker's neighborhood and met a big black dog, all by himself, carrying a basket in his mouth, you may be pretty sure that it is Spice, the shopper.

THE CHRISTMAS TOY SHOP.

BY ALICE J. CLEATOR.

Now is the time when shops are grand Like open doors to fairy-land! And glittering gayly mid them all Are toy-shop windows wide and tall.

'Tis here the children's steps grow slow And pause—and stop—half hours—or so. And some look up with eyes alight, And some with faces wistful, white.

Such trains of cars that look at you As if about to say, "Choo! Choo!" Such Teddy bears, the "finest made," "Imported"—just the proper shade.

Such kangaroos and elephants, And pigs that squeal and bears that dance! Such woolly lambs and tigers, too, Enough to stock a nursery "zoo."

And dolls whose outspread arms would say, "Please take me home with you today!" And "Kewpies," too, that "can't be beat," And everything that's cute and sweet!

O, yes, the shops are very grand, Like open doors to fairy-land! But, O, the dearest of them all Are toy-shop windows, wide and tall!

A PLEA FOR THE CHRISTMAS TREE.

BY F. A. W.

The Christmas tree, robed in all of its glory of tinsel and tin, pop corn, fruit and candles, is dressed in its funeral garments. The Christmas songs and the shouts of joy are part of its funeral services. Words of praise and songs of idolization constitute its obituary. In a short time it will be cast upon the dump heap as a useless thing, a thing that the housewife is glad to get out of the house, and the evergreen will be green no more.

That this tree, which nature builds slowly but lastingly, which is kept clothed in her summer greenness as a reminder that the silent life is not dead but sleeping and for protection to the wandering or homeless animal or man, should be cut off from further service by the clip of the ax does not seem in keeping with the spirit of the holidays. That this stately tree should be taken from its natural environment to man's house, there to be be-jerked with glittering and glistening foibles, does not seem becoming.

The joy the Christmas tree brings is not an appreciated one, and is only the joy of days. Rather let it serve as a perpetual Christmas tree, dressed in its holiday clothes of white—the symbol of light, purity and joy—and the green which signifies hope and immortality. It grows more stately every year. Let it serve to mankind years of joy and of protection from the icy blasts of winter and the hot rays of the summer sun. And when the day comes that it should fall, let it give

the temporary but appreciated joy of warmth to the cold and suffering; or, for longer use, let it be shaped by the hand of man into shelters from the angry weather for his kind and his kine.

Trees are getting scarce. The school yard needs one; the door yard needs one, and the road side needs one. Let the work and pleasure of cutting the tree, stealing it into the house unseen by the children, setting it up and—in stocking feet, with whispered voices and quiet motions—trimming it after the children have been put to bed and have gone to sleep listening to tales of Christmas mythology, be devoted to placing trees in needed places where they will stand as almost everlasting monuments of pleasures and energies expended.

The symbol of the winter holidays, the Christmas tree, like the symbol of our patriotic holiday, the fire-cracker, is dangerous. Both keep the city fire departments busy and help to fill hospitals, and both will be discarded when we all understand the true spirit of these holidays, and when we understand that, as now observed, they are destroyers of human and natural resources.

LITTLE FARM FABLES.

BY AUNT QUILLIA.

False Praise.

A yearling colt and a young mule that lived on the same farm became exceedingly good friends. As neither had arrived at the working age they were almost constantly together in the pasture. If Jim found an unusually sweet and tender stretch of grass he would call out in a delightful little whinny, begging his friend to come over and share it with him. Jack sometimes did the same, hailing his companion, however, in a very strange unmusical voice.

At this the colt, being of a fine nervous organization and sensitive to all impressions, would sometimes inwardly smile, but at the same time would say, "Poor Jack! he can't help it, and though coarse of constitution he is really kind at heart and, being the only young equine on the place, he is all the comrade I have."

One day he heard some boys, who had come down from the city to spend a part of their vacation on their uncle's farm, making fun of Jack.

"Yes," said one of them in reply to his brother's criticism, "Yes, his ears are enormous, all right, and his build is clumsy, but that voice, Tom, that takes the cake! I believe it would wake the seven sleepers, whatever that may mean."

At this both boys roared and passed out of sight going toward the woods where the wild raspberries grew.

And now, more than ever, were Jim's sympathies aroused. Debating within himself how he could best heal his friend's wound in case he, too, had overheard the remark, he resolved to be a little false in his attempt to comfort him.

Going over to where Jack was contentedly nibbling the grass, he began: "I don't know that you heard me call a few moments ago as my voice is so weak and feeble. Indeed, it sometimes seems to me more like a little tremulous squeal than anything else, reminding one of nothing so much as that of the screech-owl who visits the oak over yonder of nights. To be sure, my young miss seems to like it, and always takes my nose in her hand when I whinny. But that is all the compliment I ever receive. Now with you it is different. You can be heard all over the pasture, or the farm for that matter, and I have noticed that people invariably seem transfixed at the sound of it; for instance, those boys who just passed. Nature certainly has favored you in the compass, tone and quality of your voice."

Jack, naturally conceited, felt immensely flattered over these remarks and from that day forth began to bray as loud and as frequently as possible. If his young master appeared with carrots for them, up went his bray, completely drowning the whinny of his friend. No sound came to his ears that he did not feel called upon to answer, from the crowing of a cock to the whistle of a distant engine. In short, he became an unmitigated nuisance, disturbing all other stock as well as the farmer's family night and day.

So intolerable did he become at last that his owner, in desperation, sold him to a lumberman, who carried him off to the woods.

And now Jim was left alone. Sadly, indeed, did he miss poor, simple Jack.

One day as he was feeling more lonely than usual his mother came over to where he was, saying, "My son, I am sorry at your mistake. You are not supposed to possess moral sense, but you should have some horse sense. Even some men have a little, for I heard our master say, 'Praise a fool and you water his folly.'"

SMILE PROVOKERS.

"No; I don't care to run for office."

"What can they rake up on you? You never did anything criminal."

"No, but I had a lot of poetry printed when I was a youngster."

The Doctor—"Mrs. Brown has sent for me to go and see her boy, and I must go at once."

His Wife—"What is the matter with the boy?"

The Doctor—"I don't know, but Mrs. Brown has a book on 'What to do Before the Doctor Comes,' and I must hurry up before she does it."

A Centraia man found it advisable to put on a ragged suit of clothes in order to repair some machinery. After he had finished he went home to dinner. He met a tramp coming out of his front gate as he went in. The tramp mistook him for a knight of the road. He held up a warning hand. "Duck it—retreat," cautioned the tramp. "I've just tried her and she's a regular bear-cat." But the lord of the manor marched right in.

They were telling how well they could shoot and Tom Dawson recalled a duck hunt in which he had brought down five birds with one shot.

"Talk about shootin'," began old man Tilford. "I saw Jim Ferris do a mighty neat piece of work one day. His wife was puttin' out the washin' and she was complainin' about the pesky sparrows makin' dirt marks on the damp clothes with their feet."

"They're thick as bees round here," says she. "There's seven of 'em sittin' on the clothes line this blessed minute."

"I'll fix 'em," says Jim, takin' down his shotgun which he allus keeps loaded with fine bird shot. He tiptoed to the door, took aim and—

"Killed every one of them sparrows," broke in Dawson.

"You're wrong," corrected Tilford calmly. "He never teched 'em, but when his wife took in the washin' she found she had three pair of openwork stockin's and a fine peekaboo shirtwaist."

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Woman and Her Needs

At Home and Elsewhere

A Toast to Old Age.

I HAVE been asked by one of my readers to write a toast to old age. Somehow it seems hard for me to do, though why I don't know. Five years' service on the staff of a daily paper ought to fit one to write on any subject on demand, from higher criticism to the tango. But somehow, old age eludes me. And it is not that I have not been thinking of it, either. I have even dreamed about it since that day a year ago when I found the first gray hair, and six months later found the proverbial seven.

Not that I dread old age either. A beautiful old age is the one bright thing in life to look forward to. If one could only be sure of its being beautiful! But so many of us reach middle life without thinking about old age at all, or considering whether ours shall be beautiful or ugly. And then when we are forty it is such a hopeless thing to attempt to make our later years the sort we want, if we haven't been planning for them all the way up.

Now by beautiful I may not mean what my readers picture. A beautiful old age does not mean to me an age of ease and indolence and freedom from all care whatsoever. Indeed, such an old age would be to me the very opposite of beautiful. For I can not imagine any beauty in a life devoid of activity or responsibility of any sort. By a beautiful old age I mean the age which has learned calmness, dignity, poise, charity, sympathy and understanding, to which younger and more harassed folk may turn for counsel that will be safe and sane. And to reach that end one must travel by the road of self-control, a highway that so few ever find and those few stumble upon so late in life.

I am glad that the ideas about old age have changed so greatly in the past few years. Why so short a time ago as when I was a girl being old meant to be entirely out of it. When a woman got old she was expected to step down and out in her own home, to accept the rulings of her own children. She was not to wear pretty colors or stylish clothes or to pay any attention to her hair or nails; teeth she usually had lost long before and now must put up with the store kind. She was not expected to take any interest in this world, her "conversation was to be above." Religion was the only thing she might express an interest in, "the way-faring man, though a fool," might understand that. But as for politics, suffrage, higher education, eugenics, modern plays and dances, those subjects required a strong mind to understand them. Old men, too, were quietly thrust to one side by their sons. No matter what the years had taught them, the sons knew better.

Now, how different. Our old men and women of today do not give up and submit to being shoved to one side by the rising generation. They keep abreast of the times, and they keep their hold on affairs until the Grim Reaper forces them to give up. Better to wear out than to rust out, is the motto of the modern old folks, and it is this motto which keeps them perennially young. I know a great many men and women who are old so far as years go, and of all that number I know but one who is really old. He is a man who decided when he was 45 to let his daughter support him. He stopped work, sat down by the fireplace at home and browsed over the daily papers and cheap magazines. Idleness did its work. It was not long before he had slumped from a clean, vigorous man into a slovenly old dotard who would not change his linen unless compelled to do so by someone of stronger mind. Today at 65 he is practically an imbecile, just through inactivity.

On the other hand, the beautiful old folks I know are the ones who have gone on working. Many could long ago have stopped so far as enough of this world's goods were concerned. And they have eased up a bit and taken time to enjoy some of the good things of life their hard-earned money can buy them. But they have never for one moment admitted that

they had any right to stop work, to stop fighting, to pamper themselves just because the years are creeping upon them. They have kept busy, and in keeping busy they have kept happy and contented, and being happy they have kept young in heart.

They have lived, and having lived they are ready to counsel the younger ones who are just trying to learn how to live. And the counsel always begins with the warning to self-control; control of appetites, passions, ambitions, all three beautiful when mastered, but dragons when they become masters.

I have the ideal old age constantly before me. My one wish is to reach it. Unselfish, yet not slavish; meek, yet dignified; patient, yet insisting upon justice; slow to anger, yet filled with righteous wrath at evil; always busy for others, but neglecting in no way the personal wants; saddened at the present want and suffering, yet confident of God's ultimate triumph; temperate in speech, dress, food and drink; keenly alive to the present without deriding the past; ready to accept new truths, active, cheerful, sane, beautiful. To this old age may I attain, as it has been reached by one before me—my mother.

DEBORAH.

CHRISTMAS DECORATIONS.

BY MRS. JEFF DAVIS.

FIRST of all, have the Christmas tree if you possibly can manage to do so; no matter how small it may be, the children will appreciate it and look back upon it when they grow up, with many fond memories.

Select a room that is shut off from the main living room and parlor for the tree. By this arrangement the house is not made untidy by the inevitable clutter, the tree can remain as long as desired and the children may enjoy it to their heart's content.

Unless you can have colored electric lights, it is much safer to do without tree lights. The tree can be made very bright and attractive by brightly colored glass balls, "icicles" and other bright glass ornaments.

It isn't always the surest way to the pleasure of children to do everything for them. They like things best sometimes in which they have had a hand themselves. Half of the fun of a Christmas tree lies in the decoration, so the children should not be excluded. One family found out this truth for themselves, and solved the secret of prolonging the Christmas spirit in the home by the following plan. The family consisted of the parents and three children, two girls ten and twelve years old, and a boy of eight. The long days of waiting before Christmas were filled with pleasure for the children in making decorations for the tree. These were easy to make and varied in character, and were quite as effective as the boughten ones. They strung red and white pop corn, cranberries, peanuts, and made candy holders from gilded paper, and tarlton. They pasted paper chains, and cut out bells, heads, figures, etc., from old fancy post cards, and decorating these with tinsel glued on, they were quite as pretty as similar ornaments sold for five cents each.

When the time came to trim the tree this duty was left to the children who did it the day before Christmas. At six o'clock Christmas Eve the door was opened and the parents were asked to come in. The children's handiwork on the trimmed and lighted tree burst upon their vision for the first time. Only the presents for the parents, which were on a table covered with a white cloth beside the tree, were given out at this time. The children did not enjoy the tree any the less the next morning, when all marched into the room and their presents were distributed, having been later arranged on the lower branches and on the same white table.

This greatly simplified the day, too, for,

the parents having received their presents the day before, Christmas Day was left entirely for the children as it should be. Try this plan, and you will see that your children's interest in the tree will increase fifty-fold.

A charming wall decoration is to suspend wreaths of holly or other greens at alternate heights, a short, a long, and a short, etc., by double loops of Christmas greens hung from picture hooks on the molding.

People usually have boxes stored away, and certain kinds, like handkerchief, collar, glove and candy boxes will suit many gifts. Remnants of wall paper may be bought cheap, and the covering of the box is not hard work. Library paste is best for this purpose. Another idea is to cut out figures from cretonne or other cloth and paste them neatly on the white box. These pretty boxes are prized by the recipients, and will be useful after Christmas is over.

A simple Christmas centerpiece can be arranged with three immense sticks of white and red striped candy. Arrange them as a tripod and tie together with a big bow of red ribbon. Fill a small, fancy dish with Christmas bonbons or nuts and raisins, place it beneath the tripod and surround it with sprigs of holly.

A horn of plenty makes a very attractive centerpiece for a Christmas table. The horn may be made of hoops, the largest at the mouth of the horn, the others growing smaller at the pointed end. Lengths of wire run across the hoops, arranged so that the hoops will stay in position, or slender strips of wood may be used. Cover with bright colored cambric, and decorate with gay ribbon. Around it pile Christmas greens. The horn must be literally full to the brim with gifts and greens.

Another pretty scheme for the Christmas table is made of pine cones. Around the support, woven of fairly strong wire, pine cones are grouped, each cone fastened to the support with fine wire to form a basket. Within the basket to conceal the wire outlines, pine is arranged, affording a charming background for the pure white of the freshly popped corn, piled high in a deep dish placed in the center of the improvised basket. A single sprig of pine tops the center of the pile. A star outline of pine, grouped uniformly, completes the decoration, which is unique and beautiful.

An old but a good hint is to use raffia instead of ribbon for wrapping Christmas gifts. It is much less expensive and quite as pretty, and strong enough for outside strings of packages sent by mail.

Ice cream for the Christmas dinner, or for the children's Christmas party is often prettily served in new, tiny flower pots. A way to vary this idea is to place a raisin, or nut in the hole in the bottom of the pot before putting in the cream, and after grating sweet chocolate over the top to look like earth, stick a piece of evergreen in the ice cream to stand for a tree. Decorate this tree with bits of tinsel or red ribbon.

CHRISTMAS GIFTS FOR THE WOMAN WITH LITTLE LEISURE.

BY L. M. THORNTON.

AT any ten-cent store purchase a small bell-ornamented child's harness and remove the bells. Using bright crimson yarn, not too fine, crochet the harness part, using the purchased one as a pattern. Fasten the bells to the yarn and you have a gift much prettier than any you could purchase for many times the price.

For Tom or Fred or Harry.

The boy with his first watch, whether he be 12 or 20, likes to keep it in good condition. Make him a small chamol bag in which to keep it nights. Cut the bag just large enough to hold the watch, embroider his monogram or the initial of his last name on the front, and button-hole the edges together with silk of the same shade as that used for the initial. Brown or leather color are especially pretty.

A Moth Sachet.

For friends to whom you want to give

Cushion Shoes that relieve tender feet

Mayer Yerma Cushion Shoes are worn by people for comfort and relief from troubles due to sensitive feet. A soft quilted sole is built in so as to conform to the lines of the foot and absorb the jar of walking. Resists dampness—cool in summer, and warm in winter.

Mayer HONORBILT SHOES

Mayer Yerma Cushion Shoes are made in a large variety of styles for men and women—and are neat and dressy. Durable shoe quality is insured because they belong to the Mayer Honorbilt line. Either for relief from foot trouble or for solid comfort wear Yerma Cushion Shoes.

WARNING—Be sure and look for the Mayer name and trade mark on the sole. If your dealer cannot supply you, write to us.

We make Mayer Honorbilt Shoes in all styles for men, women and children: Dryox, the wet weather shoe and Martha Washington Comfort Shoes.

F. MAYER BOOT & SHOE CO. MILWAUKEE



HONORBILT



SUGAR 25 lbs. 75c

Best granulated cane, if ordered with \$10 worth of our other groceries, or 50 lbs. for \$1.50 if with a \$20 grocery order; Toilet Soap, worth 25c, only 11c for 3 large cakes; 12 bars best 5c Naptha Soap, 35c; 3 cans Baked Beans with pork, 23c; 60c Tea, 39c; 40c Baking Powder, 17c and

10,000 Other Big Bargains

sold by us direct by mail to consumers at wonderful price reductions. You save middlemen's profits, losses and expenses. Absolute satisfaction guaranteed or your money back. Grocery Bargain List Free. Send Now. It's free—just send a postal. Check full of money-saving bargain offers. Let us show you how to cut your grocery bills one-third. Write now. Send for the big Grocery Bargain List TODAY.

W. & H. Walker 9249 Herr's Island Pittsburgh, Pa.

36LB. FEATHER BEDS \$6-35

Ventilated and sanitary. Made with absolutely new, clean odorless and dustless feathers. Covered in 8-oz. A. C. A. ticking. Pair of 6 lb. pillows, same grade, \$1.05. Satisfaction guaranteed or money refunded. Cash must accompany each order. Agents wanted—make big money.

Write for Free Catalog

PURITY BEDDING COMPANY BOX 244 U, NASHVILLE, TENN.

Warner VACUUM CLEANER
RAISES NO DUST
10 DAYS FREE TRIAL
TOWN AND RURAL AGENTS WANTED
Write for our 10-day Free Trial Offer to prospective agents on our new improved 1914 Model Vacuum Cleaner. Best and strongest Suction Cleaner made. Gets both germs and dirt. Guaranteed for Five Years. We pay all express charges. Post Card brings offer. Write Dept. 55 Warner Vacuum Cleaner Co., Muncie, Ind.

WHY NOT HAVE BEST LIGHT?
Steel Mantle Burners. Odorless. Smokeless. Make coal oil produce gas—3 times more light. At dealers or prepaid by us for 25c. AGENTS WANTED.
Steel Mantle Light Co., 330 S. Street Toledo, O.

something inexpensive, and yet not a handkerchief or box of letter paper, try a moth sachet which is easily made, useful, ornamental and new. Secure small Japanese paper napkins of dainty colors or holiday brightness, fold each in the form of a sachet and in it place several layers of white cotton between which you have sprinkled the moth powder. This powder is made by adding 20 drops of oil of cedar to one ounce of prepared chalk and mixing it until thoroughly combined. Tie the sachets with pretty ribbon and if possible send in a holiday box that closes rather tightly.

For the Housewife.

A pretty blank book in which she can write her favorite recipes makes a gift any housewife would be glad to receive.

For the Young Girl.

An ordinary purchased gift seems to lack the "Christmassy" flavor, but as a present for the young girl nothing is nicer than a pretty pair of silk hose. Try embroidering her monogram or initial on the top of each stocking, or if you have the time, a scattering of daisies over the instep and front of the ankle.

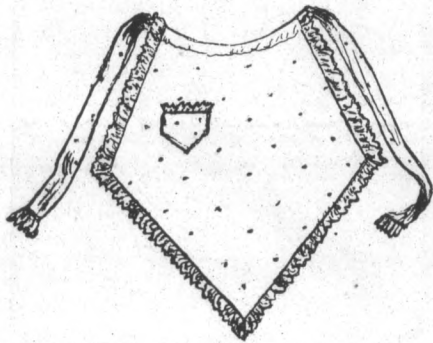
A Dainty Hat Bag.

For the friend who travels make a pretty bag of black heavy-weight taffeta silk, using one of the bags that comes from your milliner's as a model for size. In the hem at the top draw a silk cord with which to close the bag after it is in use, and about three inches below this hem work the owner-to-be's initials in bright silk. On train or boat one never knows how to keep a pretty hat from being spoiled by soot and dust, but safely ensconced in this bag it can be laid in the rack above the owner's seat out of the way and sure to be none the worse at the end of a hundred-mile journey.

A ONE-PIECE APRON.

BY FLOY SCHOONMAKER ARMSTRONG.

This pretty and easily made apron requires one and one-fourth yards of polka dot percale or lawn. Edge the apron with scalloped embroidery trimming, called sticker's braid, which comes in colors on



white ground, and select a braid to match the color of the dot in your apron material. Put a narrow facing along the waist line. The apron may be short or long, to suit the fancy of the maker or the person who is to wear the dainty article.

CHRISTMAS HINTS.

BY MRS. MAY PEINTNER.

WHY not remember some children this Christmas who get presents from no one else? For quite small children, picture blocks are nice and can be made at home. I use small pictures of animals, flowers, birds, etc. Cut out and paste on small wooden blocks the same size as the picture.

The nicest washcloths I ever used were some given me last Christmas, made of six thicknesses of white mosquito netting. White mercerized cotton was crocheted around the edge with a buttonhole stitch.

Very cute little baskets for the children can be made by cutting around large oranges, only leaving enough for handles, then scrape out the inside, fill with candy, or nuts, or cherries, etc.

When making chocolate fudge add two or three tablespoonfuls of juice from apple sauce. This makes a very pleasant flavor.

A perfume bag to keep moths away is made as follows: One-half ounce each of cloves, nutmeg, caraway seed, cinnamon, and three ounces of orris root. Grind to a fine powder and place in small bags. These bags placed in clothing or drawers will impart a very pleasant odor and keep moths out.

The children will appreciate this honey taffy. Pour over a pint of white sugar enough water to dissolve it; add four tablespoonfuls of strained honey. Boil until hard enough to crack. Pour out on greased pans and let remain until nearly cold. Then pull on a hook.

In making drawn-work collars, I do not

use embroidery hoops; instead, after pulling the threads, I sew firmly to a piece of stiff cardboard, then cut away the card from beneath the threads and you have it ready for work and firmly stretched. Do not remove until entirely finished and your collar will be perfect.

HOME QUERIES.

Direction for a baby's crocheted jacket have been received for Mrs. T. V. W., and will be forwarded to her on receipt of a self-addressed and stamped envelope.

Household Editor:—Will you kindly tell me how to clean grease spots out of tan dress goods, serge? I have tried to get it out with chloroform but it spotted it and did not take out the grease.—Mrs. E. P.

Wash the dress as you would any woolens, with warm water and a good wool soap. If it is a good quality of serge, the washing will not harm it. The serge in small boys' suits washes like cotton.

Household Editor:—How do you make bread-sticks?—Cook.

Take a bit of your bread sponge and beat into it the stiffly beaten white of one egg and two tablespoonfuls of butter. Stir stiff, take up small portions of it, form into little balls and roll out on the board with your hands until about a half an inch thick. Let rise and bake in a hot oven.

Household Editor:—About how large should a little pig be for roasting for the Christmas dinner?—Molly B.

Choose a pig about three weeks old.

Household Editor:—Will you please tell me how to remove a prune juice stain from a dark blue messaline waist?—Mrs. J. W.

You had better send the waist to the cleaners. I have never been successful in any attempt to remove stains from silk.

Household Editor:—I am troubled with cock-roaches in my house to quite an extent. Have tried several so-called preventives, either to kill them or drive them out, and have not met with success. I would like to inquire, as a subscriber, if any person has been troubled with cock-roaches and has found a sure-shot remedy, one that kills or destroys them or drives them out forever? If anyone knows of any remedy that will permanently destroy them I would like to know it.—H. T. M.

Write to the Department of Agriculture at Washington for a bulletin dealing with the pests.

Household Editor:—Can any of your readers please give a pattern for a crocheted bed spread? What must we do to get rid of weeds and have a nice lawn?—Mrs. M. W.

FASHIONS BY MAY MANTON.

Our large Fashion Book—containing 92 pages illustrating over 700 of the season's latest styles, and devoting several pages to embroidery designs, will be sent to any address on receipt of ten cents.



No. 8057—Fancy blouse, 34 to 44 bust. With low or high neck, short or long sleeves, with or without peplum.

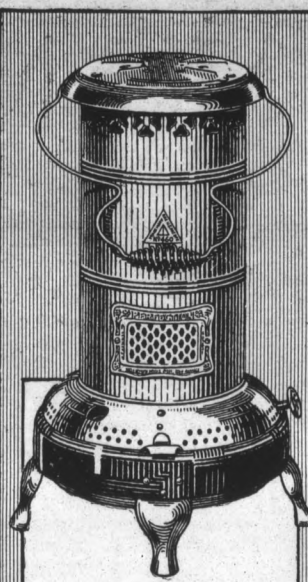
No. 8048—Fancy blouse, 34 to 42 bust. With low or high neck, with or without under sleeves.

No. 8061—Draped evening coat for misses and small women, 16 and 18 years.

No. 8038—Two-piece skirt, 22 to 30 waist. To be made of one or two materials, with or without train.

No. 8047—Two-piece skirt, 22 to 32 waist. With train in square or pointed outline or in walking length, with or without tunic, with high or natural waist line.

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



At Last The Perfect Oil Heater!

Constant, unchanging heat through every hour of burning, whether the fount holds one gallon or one pint of oil.

With a clear, steady flame that gives clean, odorless heat—no waning and no smell as the oil in the fount gets low. No danger of smoking—a patented lock flame spreader keeps the wick at the proper height—you can't even turn it up to the smoking point.

And no trouble to re-wick. In this newest Perfection wick and carrier are combined. Fresh wicks and carrier come all ready for replacement—trimmed, smooth and ready to light. You have only to turn out the old and slip in the new.

PERFECTION SMOKELESS OIL HEATER

All these wonderful improvements, found in no other heater, are yours in addition to delightful comfort, convenience, and agreeable economy.

You can postpone your regular fires for a month with this handy little stove to take from room to room, wherever you need it, and never have an uncomfortable minute. Ready by striking a match—no fuel to carry or ashes to clean.

Useful all winter in out-of-the-way rooms that are difficult to heat. Drives out chill and dampness in early spring and summer.

Your dealer will have the different Perfection models—see them now before the first chilly days bring discomfort. Descriptive booklet gladly mailed free. Just send us your name on a postal.

STANDARD OIL COMPANY
(AN INDIANA CORPORATION)
CHICAGO, ILLINOIS

Look for the Triangle
for Warmth, Comfort
and Good Cheer

Burns 10 Hours on
One Gallon of Oil

Oil Fount Holds
Over One Gallon

To Trim, Wipe Wick
With a Cloth

For Best Results Use
PERFECTION OIL

Are You Saving Your Children's Eyes?

Don't take any chances with the eyes of your boys and girls. Don't allow them to read all evening under a dim, uncertain, glaring, or "flickery" light. Don't let them study under light that might strain or weaken their sight for life. The ideal light for your children (and you, too) is most easily, quickly and economically furnished by

THE COLEMAN AIR-O-LITE

A handsome, portable table-lamp that furnishes 300-candle power of brilliant, cheerful, yet soft, restful and eye-saving light. Makes and burns its own gas. Fill only once a week, clean only once a year. Absolutely safe—can't clog up, can't blow out or explode even if tipped over. Send for free literature, with agent's wholesale price list. Write today to nearest address of

THE COLEMAN LAMP COMPANY
220 St. Francis Ave., Wichita, Kansas 1013 Summit St., Toledo, Ohio.

Child's Sailor Dress

Made of High Grade Galatea in Navy or Cadet Pekin Stripes. Sizes 2 to 6 years.

\$1.95 Prepaid in U.S.

Send for Free Catalogue of Children's, Misses' and Women's Dresses, from 50 cents up prepaid.

AMERICAN DRESS CO.
Dept. A., 95 Jefferson Ave., DETROIT, MICH.

THE "BEST" LIGHT

Gives 500 candle power. Casts no shadow. Costs 2 cents per week. Makes and burns its own gas. Over 200 styles. Every lamp warranted. No dirt. No odor. No grease. Agents wanted. Write for catalog, now.

THE BEST LIGHT CO.
280 E. 5th St., Canton, O

WANTED.

At once a few men, who are hustlers, for soliciting. No experience necessary. The work is dignified, healthful and instructive. In writing give references and also state whether you have a horse and buggy of your own. Address **BOX J. F., Care Michigan Farmer, Detroit**

WANTED—Men and women for Government positions. Examinations soon. I conducted Government Examinations. Trial examination free. Write, OZMENT, 17 R. St. Louis.

WANTED—An industrious man to represent one of the most extensive manufacturers of Home remedies, Spices, Extracts, Soaps, Toilet Articles, Perfumes, Disinfectants, Stock and Poultry Preparations in Wayne or adjoining counties. Representative must furnish suitable conveyance and bond. Large profits and a permanent position. Address at once, The American Remedy Company, Tiffin, O.

For Only 10 Cents

We will send you the following set of

Christmas Post Cards, Seals, Tags, Etc.

postpaid. The beautiful postcards can be sent to friends to whom you give no presents while the other articles will greatly add to the beauty of the gifts you give:

- 100 Santa Claus and Maple Leaf Seals
- 12 Beautiful Colored Christmas Stamps
- 27 Assorted Christmas Tags and Cards
- 20 Christmas and New Year Post Cards
- 159 Pieces in all.

This assortment if purchased separately would cost you about \$1.00. In fact the sets actually cost us twice as much as we are now asking for them, but they take up room we need for other purposes and we must sell them all now even though we lose money. You can order as many sets as you wish.

ONLY 10 CENTS WHILE THEY LAST.

Send your order to
THE MICHIGAN FARMER, Detroit, Mich.

Farmers' Clubs

THE ASSOCIATIONAL MEETING.

The twenty-first Annual Meeting of the Michigan State Association of Farmers' Clubs was held in Representative Hall in the Capitol building at Lansing on December 2-3, 1913.

The meeting was opened promptly on schedule time by President McBride, the morning session on Tuesday being devoted as usual to the routine work of payment of dues and presentation of credentials and resolutions. The appointment of committees was scheduled for this session, but the president asked for more time to acquaint himself with the delegates and learn who was present. The afternoon session opened promptly at 1:30; the music for this session was provided by the pupils from the School for the Blind at Lansing. Following invocation, the report of the Associational Secretary was given by Mrs. C. P. Johnson, which was in part as follows:

"The Farmers' Club movement is steadily gaining ground, and your secretary has only cheering messages for you. Last year we reported 114 Clubs, from 28 counties. Brighton, Livingston county, Groveland, Oakland county, and Surprise, Saginaw county, failed to survive the winter that gave Oxford, Oakland county, new life; Norvell is reported in the most prosperous condition in many years, and we gladly report Arbor, Washtenaw county, Climax and Texas, Kalamazoo county, Bedford and South Albion, Calhoun county, Burton, Genesee county, Erie, Monroe county, Peach Grove, Kent county, Progressive of Victory Township, Monroe county, Farmers' Home Improvement Club, Roscommon county, Standish, Arenac county, and Alpena county, making a total of 120 Clubs representing 35 counties, Jackson leading with ten clubs, closely followed by Livingston, Shiawassee and Oakland with nine each, Calhoun seven, Washtenaw six. Lenox and Chesterfield of Macomb county, have the largest enrollment recorded to date, 185, and Assyria, Barry county, the largest average attendance of 102. Bedford and South Albion have already joined the State Association, and we trust the others will soon do so.

Many requests for copies of the constitution and by-laws and information on organizing local Clubs have been answered promptly, and we note with pleasure the increasing popularity of the Farmers' Clubs as social, co-operative and educational factors of rural life.

Very flattering reports come from Kentucky and South Carolina who requested information and literature on Farmers' Club work from the Michigan State Association, and very special mention should be noted of the co-operation of the county experts in Club lines. H. G. Smith, of Alpena, reports a Club in his district.

Charleston Township Junior Club and the Ingham County Club Boys' Corn Contest are live issues in their respective communities.

The work of the last year has been strenuous with the extra mailing lists for the equal suffrage campaign, and it looks now as if the women will have to fight on this line more than one summer.

The new financial basis is proving more successful than we dared hope, and the results "look good" to the executive board, 17 Clubs who paid by December 1, \$69.80 netting \$58.00 as compared with \$34.00 at the old rate of \$2.00 per Club.

The annual reports were mailed April 10, and there are still some copies on hand. The U. S. Department of Agriculture requested a complete file of annual reports, and 13th to 20th inclusive were forwarded at once. Should anyone have one to 12 inclusive, and willing to send them to the library, the department will be very grateful.

The Farmers' Club page of the Michigan Farmer grows more interesting every year, with the reviews of the Club work in other states and the local Club reports.

Tuscola and Shiawassee County Associations are doing good work, Looking Glass Valley Club maintaining a fine lecture course, and some Clubs trying the co-operative buying and selling plan.

The death angel has visited our ranks, 41 having passed to the great beyond.

Your secretary has written all delinquent Clubs, with a result of \$24, 1912 dues.

The following statistical table is based

on returns from report blanks returned December 1:

One hundred and twenty active members in state; 4,320 members; 3,384 members one year ago; 589 meetings held during year; 45 average attendance; 16 Clubs use yearly programs; 15 Clubs have Club fairs; 14 Clubs have temperance meetings; 41 Clubs have picnics; 40 Club secretaries take the Michigan Farmer; 41 Clubs sent delegates to annual meeting, 1912; 84 Clubs returned 1912 report blanks; 72 Clubs paid 1912 dues.

The first number on the afternoon program was an address, "As the City Man Views the Country Man," by H. M. Nimmo, editor of the Detroit Saturday Night. Mr. Nimmo approached his subject with the utmost frankness, referring as the probable reason for his invitation to address the meeting, to an editorial published in his paper after the last annual meeting of the Association, in which it was referred to as "A Rural Salvation Army," which title was applied to the organization because it discussed and passed resolutions relating to matters pertaining, in Mr. Nimmo's opinion, entirely to the local self-government of cities. He then painted a vivid picture of the country man in the aggregate, in which the main points were that he is puritanical in his views of social affairs and liberal in everything but money, the inference being that he was always ready to advise his city cousin and others outside of his own sphere, with regard to the proper conduct of their affairs. Mr. Nimmo's views were presented in the spirit of kindness rather than criticism and, due to his tact, were received by his hearers in the spirit in which they were given.

In order that both sides of this proposition might be presented, the next number was, "As the Country Man Views the City Man," this response having been assigned to Hon. A. B. Cook, of the Maple River Farmers' Club. Mr. Cook was unable to be present, but the subject was ably handled by Mr. C. B. Cook, of the same Club, who thought that the criticisms on both sides were very largely and very generally due to a lack of proper understanding and appreciation of each other on the part of both city and country men, and that it was most desirable that they should get together in an attempt to solve the questions in which both are vitally interested, particularly the economic questions which relate to the high cost of living. This fact was emphasized by the statement that while government statistics show that the farmers of the country last year received a total of something like six billion dollars for their products, the consumers paid something like fifteen billion dollars for the same products. He cited numerous examples which had come under his own observation, illustrating the misunderstanding of this situation by city men, who are inclined to believe that the farmers are getting rich, as a result of the advance of the prices to consumers.

As Dr. Mumford, in charge of the Farm Management and Field Studies for Michigan, who was to have addressed the meeting at this session could not be present until a later session, considerable time was devoted to the two talks above summarized, after which the president appointed the regular committees, closing the afternoon session.

Tuesday Evening Session.

The president's address was as usual the opening number of the Tuesday evening session. President McBride's address was of a character to impress his hearers with the fact that he has been a deep student of affairs and to inspire them with renewed zeal in their work for the betterment of mankind and the conditions surrounding human life. He made a strong point of the fact that the country and the cities are interdependent, throwing much additional light on the subject of the afternoon's debate. As related to that discussion he stated that one common mistake of city people was that they do not understand the soil problem. They have too frequently and too generally regarded the production of crops from the soil in the same light as they have mining, except that they have considered the fertility of the soil an inexhaustible resource. They forget, or do not think, that every crop which is harvested and sent to the city is just that much fertility taken from the land, and that to preserve the fertility of that land an equivalent of fertilizing elements must be returned to it.

In touching upon the important criminal problem, President McBride emphasized the fact that the farmer's share of the cost of caring for the criminal classes

of the state is entirely out of proportion to the country's contribution to crime. He well stated the fact that while the saloons and other similar evils are properly city and town institutions, the right of the farmers of the state to have a voice in the matter of their perpetuity and conduct can hardly be denied in the face of the fact that the cost of the crime which they produce is entailed on the whole population.

In speaking of the future, President McBride referred to the accomplishments of the past as a reason why we should take courage. Touching upon the high cost of living he stated that the farmers were interested in this problem as well as the city people, because they, too, have to live. He commended the various forms of assistance which have been extended to agriculture by the banks, commercial clubs and similar organizations. Altogether, his address was one to inspire his hearers with optimism and he showed his appreciation of the dignity as well as the importance of agriculture by the statement that the farmer who grows a perfect crop of grain or an improved domestic animal is an artist.

At this point a transposition was made in the order of the program and Mrs. W. H. Taylor, of the Ingham County Farmers' Club, read a paper entitled, "Side Lights on Farm Life," which we hope to summarize in a future issue.

The next number on the program was one in which those present had an immediate and practical interest. It was an address by Hon. Lawton T. Hemans, member of the state railroad commission, on the subject, "About the Telephone System." The burden of Mr. Hemans' address was that in this line of commercial activity the problems involved would be simplified and the cost of service reduced by combination instead of competition. He believes that the ultimate solution will lie in the division of territory between the strong companies in such a manner as will enable a single company to serve a given territory. He said that at present there are 1,277 corporations supplying telephone service in Michigan, and that while the Railroad Commission has been censured for promoting mergers it is the dream of the commission to see a single telephone company in each neighborhood, with an unprohibited interchange between them. Mr. Hemans advanced the theory that increased rates were due to competition rather than combination, and that where two companies are competing in the same field they will be found charging an excessive rate in communities where they occupy the field alone. He mentioned public hearings which are to be held in different sections of the state with a view of eliminating undesirable competition.

"Our State Charges who have Violated the Law," was the subject of the closing address of the session, delivered by Chaplain Lowther, of the Jackson State Prison. "The Manhood of Michigan can save the boyhood of the state if they will stop being selfish long enough to do it," declared the speaker, who thinks that every red-blooded boy can be won back to right living and good citizenship if the right man gets him. He believes that the State Industrial School is adding to the toll of crime in the state. This is not due to the management, which he thinks excellent, but to the system of unloading boys who have not had home training, onto the state, herding them with others of vicious mind and then expecting them all to come out of that environment as good citizens. In the prisons he declares our system to be equally at fault in that comparatively innocent first offenders are herded with habitual criminals—boys with moral degenerates. After stating that society provides the conditions that send men to prison, the speaker asked the pertinent question, "What is society going to do to give them a chance?" Referring to the conditions which exist in cities and towns he said that "We need to do much in the cities, but it is a country problem, too, for it concerns the welfare of Michigan."

Wednesday Morning Session.

This session was, as usual, the business session of the meeting. The morning hours were devoted to the usual "Conference of Club Workers," which was conducted by Mr. C. P. Reynolds, of the Maple River Club. The session, however, lacked the value which has characterized those of many former meetings for the reason that many of the delegates showed an inclination to digress and discuss general topics at such length that the time did not suffice for a report by all of the delegates present regarding the work of their local organizations.

Following this conference came reports of committees, resolutions being adopted with such freedom that space will not permit their publication in full. Briefly summarized, the sense of the action taken was as follows:

State Affairs.—Pledging an interest in the working out of reforms made possible by the adoption of the initiative and referendum; asking that the Railroad Commission be made a public utilities commission; favoring a law guaranteeing bank deposits; favoring extension of the recall to cover judges; favoring the establishment of a "court of conciliation" for the settlement of disputes without court trial; favoring free text books to and including the eighth grade, and a reduction of the number of grades in common schools to six and in high schools to three; favoring a tonnage tax; favoring referendum vote in counties on policies and appropriations for road building; reaffirming declaration of principles made at 1912 meeting; favoring a compulsory spraying law for fruit trees.

National Affairs.—Indorsing administration's course in Mexican problem; requesting support of senators and congressmen for the Lever Bill; indorsing the Newlands River Bill; favoring reduction of foreign postal rates; favoring collection of inheritance taxes by federal government; favoring national aid for good roads; favoring government ownership of express, telephone and telegraph as adjuncts to postal service; commending work of National Popular Government League.

Temperance.—Pledging unstinted aid and encouragement to the local option movement and expressing the ultimate desire for state-wide and national prohibition.

Miscellaneous.—Favoring the appointment of a committee to co-operate with like committees from other farmers' organizations in the outlining of a plan for the bringing about of reforms by means of the initiative and referendum; favoring the establishment by the State Board of Agriculture of a Woman's Bureau of Home Management.

Club Extension.—Inasmuch as this is a matter for action by the Clubs themselves, we give the text of the resolution reported by the committee on Club Extension and adopted by the convention in full as follows:

Whereas, we believe that good could be accomplished by more systematic work along the line of connected programs or continuous topics.

Resolved, we can recommend the yearly program to every Club in the state and urge upon all to accomplish as much along this line.

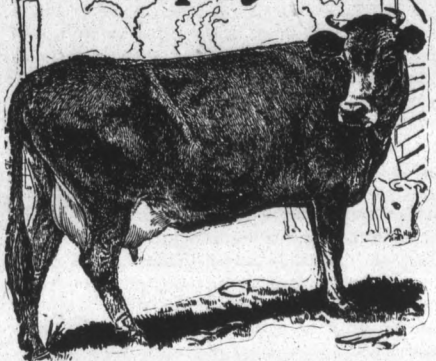
Also, we believe that one of the great needs of the Farmers' Clubs of our state is enlisting the young people in Club work and that in this alone lies our future success, therefore we recommend to our Clubs that you inaugurate Boys' and Girls' Clubs in your territory, holding an exhibit in the fall with suitable prizes or rewards, and we recommend that this State Association authorize its executive committee to provide for an exhibit at our next annual session, this to be made up of corn grown by the boys, and sewing or cooking by the girls. We would recommend that committees be appointed by each Club on such important subjects as alfalfa, silos, fertilizers, spraying, hog cholera, domestic science, or any other, and that it be the business of the committees to keep themselves posted on all new valuable information along their respective lines, and report the same to their Clubs at stated times.

We believe that our Association could do no better work than to aid Dr. Eben Mumford, in his work of placing county experts in the different counties of Michigan.

We believe that Club life would be quickened and more delegates sent to our State Association, and a stronger bond welded between the local Clubs by a visit at least once a year of some officer or director of the Association, therefore we recommend that we urge each Club to write our assistant secretary as to which is the nearest officer or director available and have them sent to address that Club on some phase of Club work, the actual traveling expenses of the officer or director to be borne, one-half by the local Club and one-half by the State Association.

Election of officers resulted in the reelection of Hon. Jas. N. McBride as president and Mrs. C. P. Johnson as secretary-treasurer. A full list of the new officers and a report of the two remaining sessions of the evening will be given in the next issue.

Where corn and cows pay best!



Mr. Tate, near Camden, Ark. says: "We make 63 bu. of corn an acre here. There is all the native hay we need and splendid pasture. Lespedeza is found everywhere; Bermuda will not dry out or freeze."

Within a radius of two miles of Mt. Pleasant, Texas, there are 200 ever-flowing clear water springs and the finest Bermuda range you ever laid eyes on—think of the advantages there for dairying.

On account of fine pasture, etc., pure spring water, well drained land and mild climate, milk and butter can be produced for 40 per cent less along the

Cotton Belt Route in Arkansas and Texas

than anywhere else. Yet, these dairy products bring higher prices in the local small town market, etc., there, than northern farmers get in such cities as St. Louis and Chicago.

When you can get fine corn land at \$15 to \$35 per acre; when you have a mild short winter and don't have to stall feed stock; when you produce milk and butter at the lowest cost and sell them at the highest price; you can make big money. In Arkansas and East Texas you would have good roads, good schools, close markets, phones, rural delivery, churches, etc.

Books by a farmer—free!

We got a practical farmer to travel all along the Cotton Belt Route and talk with the farmers themselves, get pictures of their farms and their personal statements. Because he was a farmer this man knew what you wanted to know about these sections and he tells you in these free books—showing scores of actual photograph pictures of the farms he visited. You must not miss seeing these books. Write today!

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Low Fare Excursions via
Cotton Belt Route on 1st and
3rd Tuesdays each month.
Ask me about them, write!



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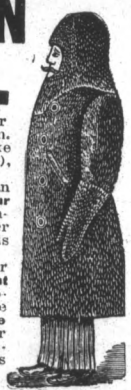
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Farm Commerce.

Why Market by Parcel Post.

THE greatest co-operative business institution ever brought into activity is the parcels post recently inaugurated by the people of the United States. Here about 100,000,000 members participate in the benefits of the institution. It compasses a territory reaching half way around the world from east to west, and from Alaska on the north to Panama on the south. Within that territory it uses nearly all modes of transportation—steamship service, railroads, electric lines, auto trucks, wagons, motorcycles, the rural carrier's rig, stage coach, pack horse, etc. It connects every farm in the country with every cottage of the great cities, and the hamlet of the east with the mountain home of the west. And notwithstanding the fact that the limits of service have thus far been closely restricted partially to allow the machinery to become adjusted to the demands and partially for other reasons, the volume of business done is enormous.

Now the American people, as a people, have sympathy for the little fellow. Out of this sympathy grew the battle cry of colonial days where the sentiment was that "men are born free and equal." The same spirit was expressed in the sixties when the slave was freed. We are even now trying to loosen the grip of the trust, of powerful money interests, and decapitate the political boss. But in spite of this sentiment here is a business institution, enormous in its scope, that every citizen of the country, and particularly the rural residents, should patronize.

They should do this, in the first instance, because its use will tend to give the little fellow equal advantages with the big fellow. It furnishes a system of distribution that treats all alike. It patronizes no clique, allows no rebates, carries at cost or thereabouts, and in every way tends to equalize advantages among men. It is, in other words, "for the people."

And the farmers should use the system because it belongs in part to them. The representatives of the people constitute the board of directors, as it were, of this great co-operative business enterprise. By taking advantage of its service, men are "minding their own business," helping themselves, and also, their neighbors. The greater the amount of business done the cheaper goods can be carried. The way to lower the rates for carrying packages by parcel post is to patronize the system. If there is a surplus from the service, that surplus will need to be used for some public purpose and thereby lessen the demand for moneys from other sources. The people are bound to benefit by the increased business done by parcel post, however we figure it.

Then, again, the parcel post method of distributing goods is convenient. If you send a Christmas turkey to a patron in the city via the post office route you hand it to the agent of the parcel post at your door and another agent of that same system hands it to your customer on Twenty-first Street, or wherever he lives. It not only reaches from town to town but from home to home. Such a system is quite near the acme of perfection so far as reaching out to the people goes.

And it is economical. Some mathematical genius will dispute this, but it is so nevertheless. The greatest mathematician of business problems is Mr. Experience. He takes into consideration some of the little items of account that the ordinary genius overlooks, and Mr. Experience has been found reliable—so much so that other means of distribution are being forsaken for the way he points out, and he says, "Use the parcel post." You see, he has analyzed the entire problem and by properly crediting the parcel post system with the service of taking the goods from the farm directly and giving to the consignee personally, he gets figures decidedly favorable to the great co-operative institution.

But there are further reasons for the farmer's support. While he may feel that now the limits of the parcel post are too narrow for giving him the service he wants, it must be remembered that the service is to become a very important means of trading. It is predicted by men in close touch with the service that during the season of 1914 there will be hand-

led fully 1,000,000,000 parcels. And this is only the beginning. Here is what is coming: While it has not been officially announced, yet the writer has been assured that the limit will be raised from the present limit of 20 pounds to a limit of 50, and possibly 100, pounds during the coming year. Does not that sound optimistic to the man who raises chickens, produces eggs, butter, apples, meat, milk, cream, honey, molasses, small fruit, canned fruit and vegetables? This selling of farm products by parcel post is a habit we should certainly establish.

Furthermore, the organization of the parcel post system is being perfected along business lines. Take, for example, the changes that are being made in the methods of delivery at Detroit. Up to the present time all deliveries have been made from the central office. This in many instances has occasioned delay and increased expense, especially in the delivery of parcels to certain sections of the city. Postmaster Nagel, of that office, stated to us that plans are now well matured whereby parcels will be directed from the depots to the sub-stations without going through the central office, and from the sub-stations the goods will be delivered to the people. This is one example of many showing how the men in charge of the work of the greatest co-operative institution are trying to make it serve its members along careful and sensible business lines.

Simplicity is also one of the attractive features of the parcel post system, and because of this the farmers should encourage it. Aside from the fact that the goods must be carefully packed in order to be carried safely, and to prevent injury to other parcels, the clerical requirements of the plan are very simple, so far

CITY MARKETS OF MICHIGAN.

THE city market which was opened late in the fall at Jackson is proving unusually successful and in some respects at least stands at the head among the municipal markets of Michigan. Jackson is a compact city of over 30,000 people, with rich farming lands stretching out in all directions. A central site for the market has been chosen, and right here is where many cities make mistakes. The Jackson market is accessible from two streets, is close by the interurban freight depot and is easily reached from all the city car lines. A market master has been placed in charge, also a board of governors, and these men are right on the job every day. The Jackson daily newspapers are boosting the city market in every issue. One reason why this market succeeds so well doubtless lies in the fact that you can get almost everything there—fresh fish, meats, vegetables, groceries, etc.—while in Grand Rapids and other markets the offerings are confined almost wholly to fruits and vegetables. You can get all kinds of relishes, home-made baked goods and home-made candies, on the Jackson market. One plucky farmer's wife drives eight miles to the market every Wednesday and Saturday with baked goods, bread, rolls, chicken noodles, escalloped potatoes, baked beans, etc. Prospects point to more active competition in the meat business during the winter. Several farmers who know how to cut up meat will open stalls and retail their own stuff, dividing the middleman's profits with the city consumer. The Jackson market is not an early morning affair with practically everything over by 7:00 a. m., a time when city people are scarcely out of bed, but continues through the day, and on Saturdays, the big day, is open until 10:00 p. m. Telephones are being installed for the convenience of patrons. The market master is taking many orders for potatoes from persons desiring their winter supply and these are turned over to the farmers who, as a rule, will deliver the goods at the homes. Fresh eggs and butter are always in good supply. Jackson papers stated that thousands of chickens, ducks, turkeys and geese would be on sale the Saturday before Thanksgiving, and as a result there were over 200 people on hand shortly after eight o'clock and the poultry was cleaned up early. The

as the shipper himself is concerned. It is devoid of the usual "red tape" of the ordinary common carrier. Furthermore, the farmer has been accustomed to the same plan in the posting of mail matter, all of which commends the system to him.

Another feature that should not be overlooked is that parcels may be insured. A mailable parcel on which the postage is fully prepaid may be insured against loss in an amount not exceeding \$25 on payment of a fee of five cents, and \$50 on a payment of ten cents. Insurance tags are used for the purpose of insurance, and may be obtained on application at the post offices. This feature of the parcel post plan should give shippers the utmost confidence in this method of distribution.

Finally, there is another argument that should appeal strongly to a certain class of producers, and that is that the parcel post will enable them to produce a high quality of goods where now it is necessary that they endeavor to produce a large bulk, regardless of the quality. It is the superior quality of goods that encourages consumers to secure their supplies direct from the country. If they can secure direct from the farmer apples much superior to the ones they can buy at the grocery for the same price, they are certainly going to seek further shipments from that farmer. It is the same with eggs, butter and other products. Now in the selling of high-class products, one is disposing of the skill used in the production of these products, as well as the actual manual labor required, and it has always been found in the industrial and mercantile world, that products requiring skill to produce always demand the largest premium of profit. We maintain, therefore, that the farmer who takes advantage of the parcel post method of getting products to the consumer, opens the way to the production and distribution of this class of goods, and thereby improves his opportunity for receiving a greater income from his labor.

These are some of the reasons why the farmer should use the parcel post. In succeeding issues we shall show how different kinds of products should be packed to insure safe shipment by this method of distribution.

attendance that day is estimated at 2,000 people. Jackson consumers are finding that getting the city market habit is not only attractive financially, with better stuff at lower prices than the stores afford, but that there are health and social considerations. People get together socially and the communal life of the city is strengthened. The exercise in the open air is also beneficial.

Markets in Other Cities.

Upper peninsula towns are waking up on the market proposition. A centrally located site at Manistique has been offered free of expense for public market purposes and city people say that it now is up to the farmers of that section to bring in their stuff.

Under direction of the Commercial Club of Ironwood, an old-fashioned "bee" was held in that city October 16 to clear and grade a site for the farmers' market on upper Suffolk street, near the "Miner's home." Sheds are being built by the city, with other accommodations for farmers and their rigs.

Work on the new market building at Flint is now well under way. It will be a modern structure built along sanitary lines and easily cleaned by flushing the cement floors. Rows of sheds have been completed for further accommodation of farmers' rigs. The location is on Smith street, near the city waterworks. A railroad siding will be extended to the market.

A. GRIFFIN.

HOW TO SEND SAMPLES OF MILK.

Many make the mistake of sending samples of cream or milk to the Michigan Farmer offices instead of addressing them to the Michigan Farmer Laboratories, 674 Woodward avenue, Detroit. By having the samples delivered directly to the laboratories they arrive in better condition for testing.

Our new subscribers may not know that the Michigan Farmer will test milk or cream free of charge for them. Follow these directions: Thoroughly mix the cream or milk by pouring from can to can three or four times, take enough to fill a 4-oz. wide-mouthed bottle, enclose bottle in mailing case and send by parcel post to Michigan Farmer Laboratories, 674 Woodward avenue, Detroit. We furnish a suitable bottle and mailing tube for 10 cents in stamps. Send order for those to Michigan Farmer, Detroit.

Crop and Market Notes.

Michigan.

Branch Co., Dec. 1.—December finds us with some corn yet in the field. The yield is about 25 per cent short, owing to drouth and fodder hurt by fall rains. Corn selling at 30@35c per basket. Buckwheat poor crop here, as hot dry weather prevented filling. Price \$1.65 per cwt. Potatoes a light crop and selling at from 40@65c. Wheat selling at 90c, but many farmers are having to feed their wheat owing to the presence of loose smut. Clover seed was fair yield and quality good. Beans large acreage but poor yield, average under 12 bu., selling at about \$1.75 per bu. Beans ripened very uneven, making them hard to thresh. Not much stock being fed owing to short corn and hay crops. As a whole this season was only ordinarily favorable for the farmers in this locality.

Washtenaw Co., Dec. 2.—The weather at this date and for the past week has been warm, wet and foggy and for the last three days it has rained most of the time. Corn husking is at a standstill and a good deal of complaint of spoiling fodder. The year just past has been, from the farmer's viewpoint, both good and bad. Crops have made an average of 60 to 65 per cent of a normal yield but the price being in instances that much better than average, farmers are perhaps financially about as well off as in better crop yielding years. Milk, hogs, potatoes, hay, eggs and apples in the order named bring to the farmer the largest part of his revenue. Milk on 3½ test brings \$1.80 per cwt. Hogs, dressed \$10; potatoes 75c@1.10; hay \$15; eggs 35c; apples \$1@1.25. In its larger aspects I should pronounce it a successful year.

Kalkaska Co., Dec. 2.—The season has been moderately satisfactory, all crops except hay have made normal returns. Prices have ranged higher than usual at this season. Hay is \$18@20; other roughage is abundant as herds of cattle have been reduced on account of high prices. Ordinary milch cows are selling at \$50@80; spring calves \$15@18; hogs on foot 7@8c; potatoes 45c now, have brought 65c. Beans, white \$1.70; butter-fat 33c; not much grain sold except buckwheat, which is \$1.50 per cwt; eggs 25c; poultry, turkeys 15c; chickens 8@12c; warm, with considerable moisture.

Shiawassee Co., Dec. 1.—Heavy fog with prevailing southeast winds indicating storm. Very little rain the past two weeks. Farmers are availing themselves of the opportunity of doing a large amount of plowing. The corn crop nearly taken care of. Plenty of potatoes in the farmers' hands. Beans are moving slowly. Local prices: Beans \$1.65; wheat 88c; rye 60c; oats 39c; cloverseed 37; barley \$1.10; potatoes 60c; butter 30c; eggs 30c. Lambs are beginning to arrive for feeding. No cattle.

Livingston Co., Nov. 29.—The season of 1913 has been a fairly successful one, notwithstanding the unfavorable climatic conditions. In fact, it seems remarkable that crops have yielded as well as they have. Wheat yielded well and is of fine quality. Oats were a fair crop, beans were a little below normal in yield, but the fine quality more than offset yield. Potatoes were a fair crop, and corn was the best in years, both as to yield and quality. An unusually large acreage of clover seed was harvested, and it is fairly well filled. Wheat never looked better than it does this fall. Farmers are disposing of their beans at \$1.75 per bu. Live hogs are selling at \$7.25 per cwt., butter 30c; eggs 35c; wheat 92c; potatoes 55c per bu; rye 57c; oats 40c; hay, baled, \$12@14 per ton.

Arenac Co.—At the present writing the weather is fine and warm. Fall plowing is the order of the day. Corn husking is practically all done. Bean threshing not all done as yet. Auction sales are numerous and well attended. Good cows going at \$75@85; horses have good demand; young stock very high. Wheat 85c; oats 35c; potatoes 50c; beans \$1.60; hay \$8@12 baled; chickens 7@10c; butter 27c; eggs 26c.

Monroe Co., Dec. 3.—Weather has not been suitable to care for the corn crop. It has been raining almost steady for the past four days. Corn in the field is badly damaged; however, the moisture is favorable to the wheat and grass crops. Potatoes are bringing from 80@90c; and the majority of the crop is already marketed. Much hay and grain are now being sold. Loose hay, No. 1 timothy, is quoted at \$14@15, and No. 2 timothy at \$11. New corn \$1.07 per cwt; oats 45@47c; per bu; wheat straw \$7@10 per ton; dressed hogs 9@10c; veal 13@14c; fowls, live 12c; dressed 13@14c; turkeys, live 17c; dressed 20c; pork sausage 13@14c. Cows are high, ranging from \$60@125 per head. Milk \$1.90 per cwt. Farmers generally consider the past season a favorable one, with returns well up to that of former years.

Pennsylvania.

Eastern Crawford Co., Dec. 2.—Weather mild, grass growing, stock doing fine. Farmers plowing and a nice lot being done. All told, 1913 has been a prosperous year, crops were shorter but prices were higher. Farm produce about all cleaned up. Some hogs being marketed at \$7.75. Turkeys all picked up and only a few dairymen furnishing winter milk, which commodity is bringing \$1.75 for four per cent. Weather favorable for new seeding, also wheat, which looks fine.

Ohio.

Columbiana Co., Dec. 2.—We have been having very changeable weather during the past month but the farmers have had a good chance to get their work done and most of them have taken advantage of the fact. There were a good many potatoes to dig after the big snow we had two weeks ago but they have all been taken up. Butchering is now the order of the day although some are delaying on account of the warm weather. Taking the

weather conditions and everything into consideration the farmers of this county have had a pretty good year. Local markets: Eggs 40c; butter 30c; chickens 12c; hogs have been coming up a little, now \$7.70; potatoes are 70c; grain has been about the same.

Lancaster Co., Dec. 1.—We are having a week of rainy and foggy weather. November 30 was quite warm. Farmers have considerable corn husked and the ground is so wet they cannot haul it. Corn about half a crop, price 60c. Hay two-thirds of crop, \$14 per ton; apples one-sixth of a crop, \$1.25 per bu; potatoes very light crop, \$1 per bu; wheat good, 91c per bu; oats of good quality and two-thirds of a crop, selling at 45c per bu. Farmers are not having much to sell except wheat. What hogs there are are being shipped, partly because corn is not plentiful, but also for fear of the cholera. Fat hogs sell at \$7.25. Not as many cattle being fed as last season. Milch cows are not plentiful and are high, from \$50@90. Butter 30c; eggs 40c; chickens 10@12c per lb; turkeys 18c and retail at 25c per lb. Help very scarce. Quite a number of hogs have died of the cholera.

Eastwood Co., Dec. 3.—We could hardly call 1913 a successful season, although corn was fairly good. The rest was hurt by the extended drouth more or less. There are not many cattle or hogs being marketed now. The warm rainy season has caused the late wheat and rye to look well and has caused the pastures to green up and will save the farmers a large amount of feed. Corn 80c; wheat 95c; oats 45c; butter 25c; turkeys 16c.

Medina Co., Nov. 26.—The potato crop was about 40 per cent of normal. New seedlings and wheat are in excellent shape and old meadows are fairly good. There is a scarcity of feed in farmers' hands for their own consumption, wheat being the only surplus grain for sale. About half as many hogs and lambs are being fed as usual. Following prices being received: Hogs 7½c; chickens 11@12c; hay \$12.50; wheat 90c; potatoes 75c; butter 31c.

Highland Co., Nov. 24.—Potatoes about one-fourth of a crop. Condition of meadows 75 per cent. Wheat and rye good. Grain and feed in farmers' hands very short. Good many hogs and cattle being fed in this part. Wheat 85c; corn 60c; hogs \$7.25; cattle \$5.50@6.50 per cwt.

Ashtabula Co., Nov. 22.—Warm, mild weather here this week, the temperature going as high as 72 on the 19th. Everyone is improving the good weather by plowing and husking corn. Some are complaining of mouldy corn. Not much butchering done yet; lots of sales now; new milch cows in demand at fabulous prices. Some farm property changing hands. Poultry, 10c; turkeys, 20@23c; pork 7½c; dairy butter 30c; eggs 34c; potatoes 70c; oats 40c; wheat 85c; buckwheat \$1.50 per cwt.

Sandusky Co., Nov. 20.—It is nice and warm now after a record-breaking blizzard. Snow is all gone and farmers are pushing corn husking and fall work. Corn not very good in quality and not over half husked. Wheat looking extra good. But little rye sown. Meadows best in years. This has been a great clover year for seed and young clover. Plenty of rough feed, lots of cattle being fed. Farmers holding most grain and hay for higher prices. Hog cholera forcing hogs on the market. Potatoes all sold at 75@85c and were a light crop; hay \$12@15; wheat 90c; oats 38c; new corn 72c per cwt; rye 60c; chickens 9@10c; turkeys 15c; eggs 35c; butter 30c; lambs \$5.50@6.

Indiana.

Tippicanoe Co., Dec. 2.—The weather has been very damp and rainy for the last two weeks, making it impossible for the farmers to finish corn husking. This year's crop production was not as successful as that of last year but the farmers will have plenty of feed for consumption during the winter. On the whole, we cannot consider 1913 a very successful season for the farmer. The second growth of clover was short but it yielded good. Wheat 87c; clover seed \$8.82; alsike \$10.50; corn 65c; timothy \$13; oat straw \$6; eggs 33c; butter 27c.

Jay Co., Dec. 1.—At this writing it is warm and raining and has been for a week. There is still much corn in the shock, the warm weather and continued dampness has hindered somewhat in the cribbing. Some danger to river bottom corn if weather still continues. This section produced the best corn crop for years making up and more for the extra short oat crop. 1913 has been a very successful year for farmers in this section. A small loss was occasioned by a hog cholera epidemic among a very few herds. Not much grain moving to market, just enough to meet current expenses and taxes, and surplus for which they have no room. Some hay moving to market but the late fall and abundance of fodder keeps the price way down, now \$8.50@12.50; cattle feeders are feeding some silage; cattle prices show a decided drop. Hogs have sold for 9½c during the summer but are quoted at 7½c now. Much cream is marketed at the creameries, wagons chasing all over the country for it. Wheat 87c; oats 35c; rye 57c; new corn 75c; butter 23c; eggs 34c.

Illinois.

Champaign Co., Dec. 1.—Very unseasonable weather; we have had two weeks of constant rain and the whole month of (Continued on page 546).

YOUR MARKET AND YOUR METHODS.

In a very suggestive article which will appear in this Department of the December 20 issue of the Michigan Farmer, W. Milton Kelley shows why the man who markets quality goods must grow and handle them carefully. While the article deals largely with fruits and truck crops the principles involved reach out to the marketing of other farm products, making it a contribution that should be read by every tiller of the soil.

"Look Beyond the End of Your Nose"

grandfather used to say. A Florida fruit grower remarked that he had to go to California to learn that he had been wrong for twenty years. The potato growers of Maine get hints from Colorado; the apple men learn from the orange growers how to coöperate. Here's where the national-farm-weekly idea comes in. If you want to get your long-distance lessons in money-making methods without spending carfare, look beyond the end of your nose and get the national-farm-weekly habit. The big National Farm Paper is *The Country Gentleman*.



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Independence Square Philadelphia, Penna.

Markets.

GRAINS AND SEEDS.

December 9, 1913.

Wheat.—Substantial gains have been made in prices during the past week, and the market appears to be firmly established on the higher levels. About the only real bearish news is the excellent condition in which the growing crop is going into winter quarters; outside of this everything seems to favor higher prices. Canadian exports have practically ceased for the year and receipts in the American northwest are much below those of a year ago. In Kansas and other southwestern sections, much wheat is being used for feed, the shortage of the corn crop making it more economical to feed wheat than maize. While England is bidding for Russian cargoes, the demand for wheat on the continent is sufficiently large to absorb practically all of the shipments from the Black Sea district. Argentina is having changeable weather, but even with favorable conditions, the export surplus cannot be large, and the quality is inferior. India has enjoyed better weather the past few days, but there is little hope of reviving the already much damaged crop. Australia is also asking higher prices for the cargoes she is sending out. The advance in prices for the week amounts to nearly 3c. One year ago No. 2 red wheat was quoted at \$1.05 per bu. Quotations on the Detroit market for the past week are:

	No. 2	No. 1	Red.	White.	Dec.	May.
Wednesday	99	99	99	99	1.04	1.04
Thursday	1.00	1.00	1.00	1.00	1.05	1.05
Friday	1.00	1.00	1.00	1.00	1.05	1.05
Saturday	1.00	1.00	1.00	1.00	1.05	1.05
Monday	1.01	1.01	1.01	1.01	1.06	1.06
Tuesday	1.01	1.01	1.01	1.01	1.06	1.06

Chicago, (Dec. 9).—No. 2 red wheat, 98c; Dec., 88½c; May, 92½c per bu.

Corn.—There have been consistent gains in the corn market the past week. Prices show a full cent advance. Colder weather has made shelling and grading of corn possible in the heavy producing districts, which acts temporarily as a bearish influence, enabling farmers to deliver. The shortage, however, is being keenly felt, and while substitutes are being used as liberally as possible, corn values promise to be maintained at or above the present level for some time to come. Many farmers are marketing their live stock rather than feed corn of such high value. One year ago No. 3 corn was quoted at 48c per bu. Local quotations for the past week are:

	No. 2	No. 2
	Mixed.	Yellow.
Wednesday	69	71
Thursday	69½	71½
Friday	69½	71½
Saturday	69½	71½
Monday	70	72
Tuesday	70	72

Chicago, (Dec. 9).—No. 2 corn, 72½c; Dec., 70c; May, 70c per bu.

Oats.—This cereal has also advanced, present figures being 1c above those of a week ago. Dealers appear anxious for this grain, believing that at present figures it is a good buy as compared with corn and other feeds. Primary receipts are small, and the visible supply decreased nearly three-quarters of a million bu. One year ago standard oats were quoted at 37c per bu. Prices for the past week are:

	Standard.	No. 3
	White.	White.
Wednesday	43	42½
Thursday	43½	43
Friday	44	43½
Saturday	44	43½
Monday	44	43½
Tuesday	44	43½

Chicago, (Dec. 9).—No. 3 white oats, 41½@42½c; Dec., 39½c; May, 42½c per bushel.

Beans.—Elevators are reported to be pretty well loaded up with beans in the heavy producing districts and consequently are not anxiously bidding for additional supplies unless they can get them at a safe figure, which accounts in part for the reduction of quotations the past week. Immediate and November shipments are quoted at \$1.85; January \$1.90 per bushel. Chicago reports an easy trade at lower prices. Pea beans, hand-picked, choice, are quoted at \$2.15; common \$1.75@2; red kidneys, choice \$2.65@2.75 per bu.

Rye.—This cereal rules steady. No. 2 is quoted at 66c per bu.

Barley.—At Chicago barley is quoted at 73@78c per bu., while Milwaukee quotes the malting grades at from 56@78c.

Cloverseed.—Dealers are anxious for seed and the demand has boosted prices. Prime spot is quoted at Detroit at \$9.40 per bu; Dec., \$9.40; March, \$9.50. Prime alsike is steady at \$11.10 per bu. At Toledo, December is quoted at \$9.52½ and prime alsike at \$11.40.

FLOUR AND FEEDS.

Flour.—Jobbing lots in ½ paper sacks are selling on the Detroit market per 196 lbs. as follows: Best patent, \$5.30; second, \$4.80; straight, \$4.50; spring patent, \$5.10; rye flour, \$4.60 per bbl.

Feed.—In 100-lb. sacks, jobbing lots: Bran, \$23; coarse middlings, \$27; fine middlings, \$27; cracked corn, \$31; coarse corn meal \$30; corn and oat chop \$26.50 per ton.

Hay.—Better grades lower, ordinary kinds steady. Carlots on the track at Detroit are: No. 1 timothy \$16@16.50; standard \$15@15.50; No. 2 \$14.50@15; light mixed \$15@15.50; No. 1 mixed \$13.50@14.

Chicago.—For choice grades of hay there is an active demand and too little

stock; while lower grades are in large supply and move slowly. Choice timothy quoted at \$18@19 per ton; No. 1, \$16@17; No. 2, \$14@15.

Straw.—Detroit.—Easy. Rye, \$8@8.50; oat straw, \$7@7.50; wheat straw, \$6.50@7 per ton.

Chicago.—Quotable as follows: Rye \$8.50@9; oat \$7@7.50; wheat \$6.50@7.

DAIRY AND POULTRY PRODUCTS.

Butter.—The local market continues steady with prices higher on good grades but lower on packing stock. Quotations are: Extra creamery 33c per lb; firsts 31c; dairy 23c; packing stock 18c per lb.

Chicago.—Market very quiet. There is some demand for first-class stuff but poor butter goes begging. Extras are scarce which makes it hard to hold prices for this grade. Quotations are: Extra creamery 33c; extra firsts 31@32c; firsts 26@28½c; seconds 22½@24c; ladles \$22@22½c; packing stock 20@20½c per lb.

Elgin.—Market firm at 35c per lb. which is a 1c advance over last week.

New York.—Market conditions for undergrade stuff deplorable. A steady demand for good grades with prices slightly higher. Quotations are: Creamery extras 35@36½c; firsts 27@33c; seconds 23@26½c; state dairy, finest 30@32c; good to prime 26@29c; common to fair, 22@25c; packing 20@21c as to quality.

Eggs.—Egg prices are lower although both receipts and demand are relatively good. Current receipts of fresh stock is quotable at 35c per doz.

Chicago.—Due to colder weather the market is steadier. Receipts of fresh eggs increasing but dealers have to rehandle every lot to satisfy fancy fresh egg trade. Prices are slightly lower. Quotations: Miscellaneous lots, cases included, 26@32c, according to quality; ordinary firsts, 28@30c; firsts, bid 32c, and held higher; refrigerator stock steady at 25½@25¾c for April firsts.

New York.—On account of high prices consumption has materially fallen off. Receipts of fresh laid stock from the south is increasing and will probably bring prices down. Quotations are: Fresh gathered extras 39@41c; extra firsts, 37@38c; firsts 35@36c.

Poultry.—Turkeys are in demand as the dealers are anticipating a big Christmas trade. There is a good demand for all kinds of poultry at present prices. Quotations are: Live—Springs, 14@14½c; hens 13@13½c; No. 2 hens 9@10c; old roosters 9@10c; turkeys 19@21c; geese, 13@14c; ducks 14c.

Chicago.—Market is fairly good. Large supply of springs brought price down ½c. Old chickens in fairly good demand. The demand for turkeys is moderate with prices unchanged. Quotations on live are: Turkeys, good weight 15c; others 12c; fowls, general run 13½c; spring chickens 12½c; ducks 11@13c; geese 8@12½c; guinea hens 8¢ per dozen.

Cheese.—Market steady with values unchanged. Wholesale lots, Michigan flats 15@15½c; New York flats, 17@17½c; brick cream, 17@17½c; limburger, 14½@15c.

Veal.—Colder weather has steadied the market. Prices slightly higher on fancy veal. Quotations: Fancy 13½@14c per lb; common 10@11c.

Chicago.—Market steady. Supply is meeting demand. Prices are unchanged. Quoted as follows: Good to choice, 90@110 lbs., 13½@14c; fair to good, 60@90c lbs., 11½@13½c.

FRUITS AND VEGETABLES.

Apples.—Prices firm and market active. Quotations are: Snow \$4@4.50; Spy \$4@4.50; Greening, \$3.50@4.50; King, \$4.50@4.75; Steele Red, \$5@5.50 per bbl; No. 2, \$2.25@2.75 per bbl; bulk \$1.25@1.50 per cwt. At Chicago prices rule firmer under a moderate demand. Values for country packed rule from \$3.50@5.50 per bbl. No. 1 Jonathan's selling best; Spies are \$3.75@4.25; Baldwins \$3.50@4.

Potatoes.—More favorable weather has resulted in a firmer tone, with prices steady. Demand is fair. Quotations as follows: In bulk 60@65c per bu; in sacks 70@75c per bu. Receipts at Chicago are small which, with the cooler weather has advanced quotations and encouraged dealers to take hold of the trade. Michigan stock is higher at 68@73c.

Cabbage.—Steady at last week's figures. Good quality quoted at \$2@2.25 per bbl. The demand is fair at Chicago with offerings light. Quotations range from \$1@1.25 per bbl. for white, and \$1.50@2 for red.

Onions.—Market remains unchanged; prices for native stock at \$2.25 per 100-lb. sack. The Chicago market is well supplied and somewhat weak with Michigan and Indiana stock quotable at \$1.25@1.40 per 65@70 lbs..

PRICES ON DETROIT EASTERN MARKET.

Market was small Tuesday morning. Enough buyers were present to take the offerings quickly at firm prices. Pork is now being delivered and held at \$11 per cwt. Potatoes are steady at 85c; apples at \$1@1.60 per bu; cabbage at 60@90c; celery is moving freely at 30c per bunch; chickens, dressed, 20c lb; butter 35c. Loose hay is not offered liberally and the prices range from \$15@18 per ton.

GRAND RAPIDS.

The poultry market starts out firm this week, with demand good. Chickens, live weight, are bringing 10½@11c; ducks 11@12c; geese 10c; turkeys 14@15c. Dressed hogs are worth 10½@11c. Jobbers are quoting eggs at 34@36c; dairy butter at 25c. Greenhouse growers are getting 7c for lettuce, 15c for parsley and 25c for radishes. No change is noted in the potato market, the local price running from 60@65c. Wheat is worth 96c; oats 40c; corn 77c; white beans \$1.60; red kidneys \$2 per bu.

THE LIVE STOCK MARKETS.

December 8, 1913.

Buffalo.

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

Receipts of stock here today: Cattle, 200 cars; hogs, 140 double decks; sheep and lambs, 88 double decks; calves 800 head.

With 150 loads of cattle arriving today, our market was in good shape for the best grades of handy weight cattle; in fact everything fat, showing good quality, sold strong 10@15c higher than last week. All other grades selling steady to strong. Market closed fairly active with about everything sold.

We quote: Best 1350 to 1450-lb. steers, natives, \$8.50@8.75; one extra load holiday cattle, \$9.15; best 1200 to 1300-lb. steers, natives, \$8.25@8.50; best 1100 to 1200-lb. steers, natives, \$7.75@8.15; coarse and plain weighty steers, natives, \$7.25@7.50; best Canada steers, 1350 to 1450 lbs., \$8.25@8.75; do 1150 to 1250 lbs., \$7.25@7.75; choice handy steers, 1000 to 1100 lbs., \$8@8.50; fair to good steers, 1000 to 1100 lbs., \$7.25@7.75; best cows, \$6.50@7; butcher cows, \$5.25@5.75; cutters, \$4.25@4.75; trimmers, \$3.25@3.75; very common old rams, \$2.75@3.25; best heifers, \$7.15@7.60; medium butcher heifers, \$6.35@6.85; light do, \$5.85@6.35; stock heifers, \$5@5.25; common light heifers, \$4@4.25; best feeding steers, dehorned, \$7.25@7.50; fair to good do, \$6.50@6.75; fancy stock steers, \$6.50; best do, \$5.75@6.25; common light do, \$5.25@5.50; best heavy bulls, \$6.75@7.25; best butcher bulls, \$6.50@7; bologna bulls, \$5.75@6.25; stock bulls, common to good, \$5@6; best milkers and springers, \$7.50@100; medium to good, \$50@70.

We had a liberal supply of hogs today but with good demand all classes sold higher. About everything, outside of roughs and stags, selling at 8c per lb. A few selected medium weights a little more. Roughs sold from \$7@7.50; stags from \$6@7. Market closed steady and a good clearance was made.

The lamb market was active today; prices steady with the close of last week. Choice lambs selling from \$15@18.25. Close strong. Sheep active, prices about 10c higher than the close of last week. Look for steady prices on lambs balance of week.

We quote: Choice lambs, \$8.15@8.25; cull to fair do, \$5.50@8; yearlings, \$6@6.50; bucks, \$3.50@3.75; wethers, \$5.25@5.50; handy ewes, \$5@5.25; heavy ewes, \$4.75@4.85; cull sheep, \$3.50@4; veals, choice to extra, \$11.50@12; fair to good \$10@11.25; heavy calves, \$5.50@8.

Chicago.

December 8, 1913.

Cattle. Hogs. Sheep. Received today 25,000 42,000 38,000 Same day last year, 19,108 32,994 40,635 Received last week, 51,391 204,064 129,662 Same week last year, 75,712 187,045 157,074

The week starts off with a lively demand for cattle and prices for the various classes averaging fully a dime higher. Hogs are up on an average all of a dime, with sales at \$7.40@7.97½ and \$8 expected. The best pigs of good weights are bringing around \$7.40. Hogs marketed last week averaged 213 lbs., comparing with 226 lbs. a year ago, 213 lbs. two years ago, 232 lbs. three years ago and 218 lbs. four years ago. The sheep and lamb market is active and largely 10c higher, with best lambs bringing \$7.90.

Cattle started off weak and largely 10@15c lower on Monday last week, with a very good supply for these times and a feeling among buyers that the good offerings of cattle from the big stock show would make a bad market. Then there were numerous offerings of fat cattle intended for the show that were rejected, and these were added to the offered lots on the open market. But the receipts on subsequent days proved so moderate that Monday's decline in prices was recovered two days later, and an additional small advance took place later, with a strong demand. The week's sales of beef cattle were largely at \$7.65@9, with fairly large sales Monday at \$9.05@9.60, the choicer class of little yearlings going at \$9@9.60, and the better class of heavy steers at \$8.50@9.10. The commoner class of light-weight steers brought \$6.50@7.50, while a fair to medium class went at \$7.60@8.20 and pretty good lots at \$8.25 and over. Cutters went at \$4.30@4.80, canners at \$3.25@4.25 and bulls at \$5@7.90. The trading in stockers and feeders was fairly large, considering the limited supply and advancing prices for desirable cattle, stock steers going at \$5@7.60, with fancy little yearlings weighing around 615 to 680 lbs. taken at \$7.45@7.60, while weighty feeders sold usually at \$6@7.60. Stock and feeding cows and heifers brought \$4.75@6.85, and superior stock calves sold at \$6.90@9 per 100 lbs., a lot of fancy Angus steer calves that averaged 453 lbs. going at the top. The calf market was animated at \$5@11.15 for rough heavy lots to prime light vealers, with light offerings. Milch cows were scarce and firm, with sales at \$60@95 per head, a big Holstein selling the highest. The future market for beeves of good quality looks promising, and owners should finish their holdings carefully.

Greatly increased receipts of hogs day after day last week tended to hold in check the recent increased rallying power of the market, notwithstanding a very good local and eastern shipping demand much of the time, and lower levels of prices were reached, buyers taking an independent stand. Owners contemplating marketing hogs from now on should use extra care in ascertaining the most favorable time for doing so, asking the advice of a reliable live stock commission firm, as well as exercising their own judgment, for it is probably only a question of time, after the rush to ship is over, when much higher prices will prevail for good, matured swine. The hogs re-

ceived are still largely of light weight, there being a liberal percentage of pigs and underweights, and for this reason these offerings have to go at a large discount, while choice heavy lots are bought up first, these bringing substantial premiums over all others. The consumption of fresh pork is as large as ever, making a quick outlet for light hogs and pigs, and there is an increasing cash demand for provisions at better prices than prevailed some time ago. Combined stocks of provisions in the five leading western markets on Dec. 1 aggregated 137,603,200 lbs., comparing with 130,368,603 lbs. a month earlier and 108,089,904 lbs. a year ago. After the best hogs had fallen to \$7.75, a reaction set in that left prices at the week's close at \$7.25@7.90 for ordinary light to prime heavy lots, with sales of pigs at \$5@7.25 and throwout packing sows at \$7@7.40.

Sheep and lambs have been placed in the predicted stronger position recently, the shutting down of the range shipping season resulting in removing this competition, and much reduced supplies of live muttons have ran prices up all along the line, sheep and lambs selling at good values when offerings were good in quality. The character of the demand has not changed much, and killers are discriminating against flocks of lambs or yearlings that average much more than 85 lbs. It is very late to look for considerable offerings of feeders, and any desirable flocks of these command very high prices. Prospects for the future of the market appear bright, but stock must be fat to bring proper returns. Lambs advanced during the week to \$8, weakening later and closing on Saturday at \$6@7.85, with feeders quoted at \$6@6.90. Yearlings closed at \$5.75@6.85, wethers at \$4.65@5.50, ewes at \$3.25@4.75 and bucks at \$3.50@4.

MICHIGAN CROP REPORT.

Wheat.—The condition of wheat as compared with an average per cent is 98 in the state, central and northern counties, 94 in the southern counties and 102 in the upper peninsula. One year ago the per cent was 90 in the state and southern counties, 88 in the central counties, 91 in the northern counties and 97 in the upper peninsula. The total number of bushels of wheat marketed by farmers in November at 92 flouring mills is 113,130 and at 92 elevators and to grain dealers 70,395 or a total of 183,525 bushels. Of this amount 133,096 bushels were marketed in the southern four tiers of counties, 36,107 in the central counties and 14,322 in the northern counties and upper peninsula. The estimated total number of bushels of wheat marketed in the four months, August November, is 2,750,000. Sixty-two mills, elevators and grain dealers report no wheat marketed in November.

Rye.—The condition of rye as compared with an average per cent is 96 in the state and central counties, 95 in the southern counties, 97 in the northern counties and 101 in the upper peninsula. One year ago the per cent was 92 in the state and northern counties, 93 in the southern counties, 91 in the central counties and 96 in the upper peninsula.

Fall Pasture.—The condition of fall pasture as compared with an average per cent is 95 in the state, 92 in the southern counties, 94 in the central counties, 98 in the northern counties and 104 in the upper peninsula.

Live Stock.—The condition of live stock throughout the state is 97 for horses, cattle and sheep and 94 for swine. Crop correspondents report hog cholera in the counties of Berrien, Branch, Calhoun, Cass, Clinton, Emmet, Hillsdale, Ingham, Jackson, Kalamazoo, Lenawee, Macomb, Mason, Menominee, Ontonagon, Saginaw, St. Joseph, Washtenaw and Wayne.

CROP AND MARKET NOTES.

(Continued from page 545).

November more or less rainy, but as the corn was less than half a crop nearly all husked now, but none has been marketed yet. I hear of some spoiling in cribs on account of the very wet and warm weather. Ordinary years 10 to 15 per cent of corn has been marketed by now. Grass green in pastures, and ground is full of water; roads nearly impassable; temperature 55 degs. now and has not been below 40 for the last ten days. Nothing being marketed by farmers now and will not be until it freezes and the roads get better. In general, the season has not been very profitable one for farmers, very light crop of everything owing to the dry summer. Corn 57c; oats 36c.

Marion Co., Nov. 28.—Owing to the mild fall, the pastures remain good. Even the late-planted wheat and grass are growing nicely. As corn is scarce, hogs are rapidly being butchered off for home use. The roads are in poor condition. Many apple orchards are being cut down in order that peach trees may be set out. The chief products marketed are: Hogs 7c; chickens 10c; eggs 35c; butter 30c; geese 9@10c. While 1913 has been a very poor year in some respects, yet an extra good yield of fruit has done much to offset its ill effects.

Wisconsin.

Polk Co., Dec. 1.—We have had foggy weather and rain every day for about two weeks. Farmers are busy plowing every day and will be about done if this weather stays a few days more. Farmers have plenty of feed on hand; corn shredding is about done now, and corn turning out good. A few carloads of hogs are now ready for market but farmers are holding them for higher prices. Hogs are selling at about 7c; beef 5c; eggs 37c; butter 36c. Potatoes were damaged by the first freeze up we had but they are selling at 45c per bu. Farmers wishing to buy apples here at the stores have to pay \$5.25 per barrel for any of the winter varieties. Farmers are holding all their grain for higher prices. Oats 34c; barley 46c; wheat 90c.

THIS IS THE FIRST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

December 4, 1913.

Cattle.

Receipts, 1309. Market strong at Wednesday's and last week's prices.

We quote: Best steers and heifers, \$7.75@8; steers and heifers, 1000 to 1200, \$7.25@7.75; do 800 to 1000, \$7@7.50; do that are fat, 600 to 800, \$6.25@6.75; do 500 to 700, \$6@6.75; choice fat cows, \$6@6.25; good do, \$5.50@5.85; common cows, \$4.50@5.25; canners, \$2.50@4; choice heavy bulls, \$6.25@6.50; fair to good bolognas, \$5.75@6.25; stock bulls, \$5@5.25; choice feeding steers, 800 to 1000, \$6.75@7; fair do, 800 to 1000, \$6.50@6.75; choice stockers, 500 to 700, \$6.25@6.50; fair do, 500 to 700, \$6@6.25; stock heifers, \$5.50@6; milkers, large, young, medium age, \$7.50@10.5; common milkers, \$4@6.00.

Bishop, B. & H. sold Sullivan P. Co. 26 steers av 963 at \$7.50, 3 heifers av 783 at \$6.75, 1 cow weighing 900 at \$5.50, 3 butchers av 820 at \$6.50, 2 cows av 890 at \$5.25, 1 do weighing 820 at \$4, 3 butchers av 890 at \$5.50, 6 do av 593 at \$6, 3 cows av 990 at \$5.50, 2 do av 1080 at \$4, 19 steers av 1003 at \$7.35, 1 cow weighing 1230 at \$6, 1 heifer weighing 590 at \$5, 4 cows av 930 at \$5.65; to Parker, W. & Co. 28 steers av 880 at \$7.50, 23 do av 1000 at \$7.70, 3 cows av 1017 at \$4, 1 bull weighing 1270 at \$6, 1 do weighing 740 at \$5, 9 cows av 999 at \$4.25, 4 do av 1012 at \$5.25, 1 canner weighing 800 at \$3.60, 18 butchers av 915 at \$7, 2 cows av 970 at \$5.25; to Mich. B. Co. 2 cows av 1085 at \$6, 28 butchers av 802 at \$7, 1 steer weighing 780 at \$7, 24 do av 1027 at \$7.90, 23 do av 1074 at \$7.50, 22 cows av 1011 at \$5.85; to Gerish Mkt Co. 25 steers av 1038 at \$7.85; to Rathborn 7 stockers av 650 at \$6.50; to Bennett & S. 9 stockers av 631 at \$6.25; to Kamman B. Co. 7 butchers av 841 at \$6.60; to Bennett & S. 13 stockers av 600 at \$6.25; to Bresnahan 7 stockers av 553 at \$5.25, 19 do av 562 at \$5.60.

Haley & M. sold Goose 5 cows av 1020 at \$5.30, 1 do weighing 920 at \$5, 2 bulls av 880 at \$5.85, 2 canners av 840 at \$4; to Sullivan P. Co. 1 bull weighing 860 at \$5.75, 1 do weighing 1160 at \$6, 3 cows av 1133 at \$6, 1 do weighing 1150 at \$5.75, 2 heifers av 750 at \$6.75; to Kamman B. Co. 7 steers av 870 at \$7.25, 6 do av 671 at \$6.35; to Kull 9 do av 958 at \$7.10; to Goose 2 oxen av 1375 at \$6.50, 1 cow weighing 1000 at \$5.50, 6 butchers av 743 at \$5.50; to Mich. B. Co. 10 do av 1020 at \$7, 5 do av 816 at \$6; to Mason B. Co. 2 steers av 810 at \$7, 5 do av 650 at \$6.35, 3 do av 700 at \$6.40; to LaBoe 14 stockers av 620 at \$6.50; to Marx 2 cows av 1030 at \$5.50, 3 steers av 703 at \$6.10, 5 do av 902 at \$7.20; to Applebaum 5 butchers av 470 at \$5.50, 7 do av 721 at \$6; to Heinrich 3 do av 793 at \$6.75, 3 do av 1040 at \$7.50, 1 do weighing 950 at \$7.25; to Henschleman 6 do av 645 at \$5.25, 11 do av 682 at \$6.30, 4 do av 460 at \$5.75; to Thompson Bros. 2 oxen av 1515 at \$5.50, 1 cow weighing 850 at \$3.50, 5 cows av 964 at \$5.50; to Marx 16 stockers av 880 at \$6.70; to Lachal 2 cows av 950 at \$5.50, 4 heifers av 662 at \$6.50.

Spicer & R. sold Rattkowsky 7 cows av 844 at \$5; to Hammond, S. & Co. 2 do av 955 at \$4; to Kull 4 do av 915 at \$5, 3 bulls av 880 at \$6, 1 heifer weighing 720 at \$6.75; to Kamman B. Co. 6 butchers av 806 at \$6.75; to Rattkowsky 1 cow weighing 750 at \$4, 6 do av 933 at \$5.50; to Sullivan P. Co. 6 butchers av 825 at \$6.25, 1 canner weighing 660 at \$3.75; to LaBoe 5 stockers av 722 at \$6.50; to Sullivan P. Co. 3 butchers av 633 at \$6.25, 3 cows av 1060 at \$6, 2 do av 940 at \$6.25; to Thompson Bros. 8 butchers av 931 at \$6.75, 4 do av 967 at \$5, 3 do av 333 at \$4.25, 5 cows av 768 at \$5; to Heinrich 11 steers av 840 at \$7.50; to Goose 7 cows av 1000 at \$5.60; to Rattkowsky 1 cow weighing 1300 at \$7.

Roe Com. Co. sold Mich. B. Co. 12 butchers av 822 at \$6.80, 2 do av 880 at \$6, 10 do av 1020 at \$7, 5 do av 816 at \$6, 8 do av 690 at \$6.40, 1 bull weighing 1450 at \$6, 7 steers av 911 at \$7, 5 do av 544 at \$6.50, 12 butchers av 718 at \$6.40, 1 bull weighing 680 at \$5.50, 1 do weighing 1520 at \$6.25, 11 butchers av 592 at \$6; to Applebaum 5 do av 489 at \$5.25; to Goose 4 cows av 900 at \$5.50, 1 do weighing 1030 at \$4, 5 do av 822 at \$5, 15 heifers av 582 at \$5.25; to Kamman B. Co. 2 steers av 885 at \$7, 1 do weighing 950 at \$6.25; to Goose 9 butchers av 602 at \$6, 1 heifer weighing 550 at \$5.25, 10 do av 544 at \$5.50; to Rattkowsky 3 do av 610 at \$5, 1 cow weighing 980 at \$5.25, 9 do av 980 at \$5.35, 5 butchers av 452 at \$5.50, 1 bull weighing 1160 at \$6, 2 do av 710 at \$5.50; to Schumaker 6 stockers av 595 at \$6.25, 9 do av 600 at \$6.25; to Breitenbeck 5 cows av 952 at \$5; to Bird 3 stockers av 453 at \$5.75; to Kull 9 steers av 958 at \$7.10; to Goose 2 oxen av 1375 at \$6.50, 1 cow weighing 1000 at \$5.50, 6 butchers av 743 at \$5.50; to LaBoe 4 do av 735 at \$6.35, 14 stockers av 651 at \$6.50.

Veal Calves.

Receipts, 495. Market steady. Best, \$11; others \$8@10.50. Spicer & R. sold Burnstine 5 av 120 at \$10.15, 1 weighing 180 at \$10, 1 weighing 150 at \$11.50, 4 av 155 at \$11; to Parker, W. & Co. 1 weighing 320 at \$7, 1 weighing 180 at \$9, 9 av 140 at \$10.50, 3 av 140 at \$11, 4 av 140 at \$10.25, 18 av 135 at \$11.

Roe Com. Co. sold Sullivan P. Co. 2 av 175 at \$9.50; to Rattkowsky 7 av 175 at \$6; to Burnstine 2 av 140 at \$9, 7 av 175 at \$11, 1 weighing 120 at \$7, 3 av 150 at \$10, 2 av 100 at \$8, 1 weighing 100 at \$8, 1 weighing 180 at \$11.

Haley & M. sold Newton B. Co. 1 weighing 160 at \$11, 3 av 150 at \$11; to Ratner 2 av 170 at \$9; to Mich. B. Co. 4 av 155 at \$11, 1 weighing 120 at \$11, 1 weighing 150 at \$10, 13 av 150 at \$11.

Bishop, B. & H. sold Hammond, S. & Co. 3 av 165 at \$11; to Sullivan P. Co. 7 av 160 at \$10.75, 8 av 155 at \$10, 2 av 320 at \$8, 6 av 160 at \$10, 2 av 170 at \$11; to Parker, W. & Co. 4 av 145 at \$10.75, 3 av 140 at \$9, 1 weighing 250 at \$6, 3 av 100 at \$7.50; to Rattkowsky 1 weighing 160 at \$7.50, 5 av 145 at \$10.50; to Mich. B. Co. 2 av 160 at \$10.50, 1 weighing 140 at \$10; to Parker, W. & Co. 29 av 140 at \$10.50; to McGuire 19 av 130 at \$11, 2 av 145 at \$10.50, 2 av 135 at \$10.75; to Mich. B. Co. 4 av 145 at \$11, 2 av 135 at \$10.75.

Sheep and Lambs.

Receipts, 6467. Market steady with Wednesday; 25@40c higher than last week. Best lambs, \$7.50@7.75; fair to good lambs, \$7@7.35; light to common lambs, \$6@6.75; fair to good sheep, \$4@4.50; culls and common, \$2.50@3.

Spicer & R. sold Costello 17 lambs av 37 at \$5, 48 do av 45 at \$6, 20 do av 48 at \$6.50, 21 do av 45 at \$6, 32 do av 60 at \$4; to Kull 9 do av 85 at \$6, 11 do av 70 at \$7; to Dold 20 do av 65 at \$7.60; to Young 12 sheep av 110 at \$4.50; to Mich. B. Co. 33 lambs av 80 at \$7.50, 27 do av 70 at \$6.50.

Roe Com. Co. sold Sullivan P. Co. 30 lambs av 72 at \$7.25, 32 do av 65 at \$7; to Thompson Bros. 15 sheep av 115 at \$4.25, 10 do av 100 at \$3.25, 10 do av 105 at \$3.25, 29 do av 125 at \$4.10; to Sullivan P. Co. 7 lambs av 85 at \$7.25.

Sandall sold Nagle P. Co. 416 lambs av 75 at \$7.50.

Haley & M. sold Parker, W. & Co. 71 lambs av 85 at \$7.60; to Mich. B. Co. 40 do av 65 at \$7.65, 23 do av 60 at \$6.85, 5 sheep av 95 at \$4, 5 lambs av 100 at \$7.50, 24 do av 80 at \$7.75, 10 sheep av 98 at \$4.50, 15 do av 100 at \$4.25, 4 do av 90 at \$3.75; to Newton B. Co. 15 lambs av 65 at \$7.50.

Bishop, B. & H. sold Swift & Co. 64 lambs av 83 at \$7.70, 156 do av 75 at \$7.75; to Nagle P. Co. 12 sheep av 95 at \$3.25, 22 do av 120 at \$4.25, 16 do av 95 at \$3.50, 34 do av 100 at \$3.75; to Sullivan P. Co. 51 lambs av 60 at \$6.50, 15 do av 57 at \$6.50, 5 sheep av 125 at \$4.25, 5 yearlings av 80 at \$5.50; to Young 93 lambs av 65 at \$7.10; to Dold & Co. 15 do av 85 at \$7.75, 59 do av 73 at \$7.75, 54 do av 68 at \$7.50; to Hammond, S. & Co. 50 do av 77 at \$7.60, 115 do av 80 at \$7.60, 11 do av 58 at \$6.50, 47 sheep av 120 at \$4, 9 do av 150 at \$3.50, 36 do av 95 at \$4.25, 67 do av 50 at \$6.50; to Parker, W. & Co. 20 lambs av 80 at \$7.75, 32 do av 70 at \$7.30; to Mich. B. Co. 38 do av 45 at \$5.25; to Goose 27 sheep av 115 at \$3.90; to Nagle P. Co. 130 lambs av 75 at \$7.60, 8 do av 65 at \$7.50; to Sullivan P. Co. 12 do av 65 at \$7, 33 do av 58 at \$6.75, 19 do av 50 at \$6.50; to Nagle P. Co. 20 do av 55 at \$6.75, 15 sheep av 125 at \$4.25, 14 do av 110 at \$3.25; to Sullivan P. Co. 28 lambs av 85 at \$7.35, 13 do av 55 at \$6.50; to Hammond, S. & Co. 36 sheep av 100 at \$4.25; to Mich. B. Co. 28 lambs av 50 at \$6; to Nagle P. Co. 445 do av 80 at \$7.65.

Hogs.

Receipts, 3401. Market 10@15c lower than Wednesday or last Thursday. Range of prices: Light to good butchers, \$7.40@7.50; pigs, \$7.25; light yorkers, \$7.40@7.50; heavy \$7.40@7.50.

Roe Com. Co. sold Sullivan P. Co. 245 av 200 at \$7.50, 450 av 190 at \$7.45.

Spicer & R. sold Parker, W. & Co. 670 av 200 at \$7.50, 60 av 175 at \$7.45.

Bishop, B. & H. sold Hammond, S. & Co. 3500 av 200 at \$7.50, 1017 av 190 at \$7.45, 515 av 160 at \$7.40.

Friday's Market.

December 12, 1913.

Cattle.

Receipts this week, 1617; last week, 778; market steady. We quote: Best steers and heifers, \$7.75@8; steers and heifers, 1000 to 1200, \$7.25@7.75; do 800 to 1000, \$7@7.50; do that are fat, 600 to 800, \$6.25@6.75; do 500 to 700, \$6@6.75; choice fat cows, \$6@6.25; good do, \$5.50@5.85; common cows, \$4.50@5.25; canners, \$2.50@4; choice heavy bulls, \$6.25@6.50; fair to good bolognas, \$5.75@6.25; stock bulls, \$5@5.25; choice feeding steers, 800 to 1000, \$7@7.25; fair do, 800 to 1000, \$6.50@6.75; choice stockers, 500 to 700, \$6.25@6.50; fair do, 500 to 700, \$6@6.25; stock heifers, \$5.50@6; milkers, large, young, medium age, \$8@10; common milkers, \$4@5.5.

Veal Calves.

Receipts this week, 713; last week, 440; Market steady. Best, \$11@11.50; others \$8@10.50.

Sheep and Lambs.

Receipts this week, 8786; last week, 6030; market steady. Best lambs, \$7.65@7.75; fair to good lambs, \$7@7.50; light to common lambs, \$6@6.75; fair to good sheep, \$4@4.50; culls and common \$2.50@3.

Hogs.

Receipts this week, 11,886; last week, 9,273; market 10@15c higher.

Range of prices: Light to good butchers, \$7.60; pigs, \$7.25@7.50; mixed, \$7.55@7.60; heavy, \$7.55@7.60.

Market Note.

There will be no market at these yards Christmas Day this year.

J. B. Kendrick, of Wyoming, believes that under fair conditions, the country's supply of beef cattle may be expected to return to normal proportions before many years. In former years he has marketed as many as six hundred cows, but last year he reduced such shipments to 200 head, selling off only the older and less desirable cows. Mr. Kendrick says there is still plenty of grass and hay in northern Wyoming, and conditions for the winter look promising.

Veterinary.

CONDUCTED BY W. C. FAIR, V. S.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to someone else. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany the letter.

Wounded Fetlock.—I have a horse that lacerated fetlock and I have applied boracic acid ointment, prescribed by local Vet., but I would like to have you prescribe a healing remedy. I. C., Hightstown, N. J.—Apply one part iodoform and 10 parts boracic acid to wound daily and cover sore lightly with oakum and bandage. I am not familiar with the formula of liniment you inquire about.

Chronic Fistula of Withers—Worms.—I have a six-year-old mare that has been troubled with fistula of withers for the past six months and I would like to know the best treatment. Her general health is good and she is not lame. Have another 12-year-old mare that is troubled with worms, she is thin, but has a good appetite and I would like to have you give formula for condition powder. W. T. H., Tarrytown, Md.—In the treatment of fistula, it is usually necessary to do some surgical work; therefore I advise you to have her treated by a Vet; or apply one part iodoform and four parts boracic acid once a day. This medicine should be put to bottom of cavity and give her a dessertspoonful of Fowler's solution at a dose twice a day. Mix together equal parts powdered sulphate iron, ground gentian, ground ginger, ground nux vomica and fenugreek. Give a tablespoonful at a dose two or three times a day.

Spinal Meningitis.—I wish to ask you for information regarding a sickness that seems to have broke out in our horses. I had three horses die with it and the fourth one is down. One Vet. calls it spinal meningitis and another one calls it paralysis of the muscles and nerves. Now I would like to know whether it is caused by grazing on low ground or drinking spring water, and whether it will pay me to treat such cases. If they get well, will they be able to work again? This disease seems to come on suddenly and when the horses get down, they are unable to stand on hind legs, but sit up like a dog. Their legs move much like a horse trotting, and when we lift them up they wobble and often fall. One horse was taken sick Friday and we helped him up, but when up, could not remain standing long without assistance and he died the next morning. Some four days later another one took sick and for eight weeks I had him in slings hoping to pull him through, but he died. N. T. H., Gibsonia, Pa.—Your horses suffer from spinal meningitis and very little can be done to relieve an animal suffering from it. The infective germ is perhaps in either their drinking water or the food they are eating; therefore, I suggest a change of feed and water. When a horse recovers from an attack of this disease they are slow in recovering and seldom good for much. In conclusion I might say that this is usually a fatal sickness. Give 1 dr. ground nux vomica, 1 dr. potassium iodide and 30 gr. doses of quinine three times a day. Alcoholic stimulants do some good.

Ringworm.—Two of my yearling steers have sores on neck and shoulders about the size of a 50 cents piece of silver and I would like to know what it is and if they can be cured. They show no symptoms of sickness so far as I can tell, but they rub themselves. H. J. D., Jamestown, N. Y.—I am quite sure your cattle suffer from ringworm and if you will paint the sores once a day with tincture iodine they will soon get well. After the itching ceases apply one part oxide of zinc and four parts vaseline daily.

Bruised Knee.—I have a cow with soft painless bunch on knee, and I believe it was caused by lying down on knees to reach food. She stands on cement floor and I have seen the cows struggle to reach feed that had been thrown out of feed trough but am not positive it was caused in this way. W. K., Meadville, Pa.—I believe you are right, for I treat many cows that injure their knees in the manner you mention. Put plenty of bedding under her knees and apply equal parts tincture iodine and camphorated oil to bunch three times a week.

Old Cow Died of Paralysis.—I had a cow 14 years old freshen Oct. 1, turned her out to pasture soon after calving—the weather was quite chilly, she stiffened in both hind quarters, moved about very little, and in 24 hours got down. Next day she got up without help, drank considerable spring water, ate some grass, but by night she was down and unable to get up. The next day I hauled her to barn and wher she laid on right side she was fairly comfortable, but it distressed her when on left side. She became quite helpless and remained down, but suffered no pain. After being down four weeks, I hoisted her up with sling, but as she did not help herself any and was apparently growing no better, I killed her. Our local Vet. tells me that she suffered from afterbirth paralysis. I did not keep her in the sling long and neighbors tell me that if she had been kept in it for a few days, she might have recovered. Do you think I made a mistake in killing her? W. C. K., Chesaning, Mich.—The only mistake that you made was in not killing the cow earlier. She no doubt took cold, resulting

in congestion of spinal cord which resulted in paralysis of hind quarters. In my practice I usually destroy them if they show no improvement in ten days. It would not help her recovery to have placed her in slings, unless she was able to stand erect alone.

Cow Slavers.—I have a cow that slobbers and grits her teeth, ears lop down and she is not thriving. I examined her mouth, found her teeth rather sharp, but every one sound. When she eats she chews very slowly and does not drink as much water as she should. W. S., Uby, Mich.—Give her 1 oz. ground gentian, 1 oz. bicarbonate soda and 1 dr. ground nux vomica at a dose either in feed or as a drench three times a day. Feed her dry meal instead of slop.

Choking—Spasm of Larynx—Epileptic Fits.—I have a pig about three months old that has been thriving fine until recently when he commenced to eat, he suddenly became nervous, front feet and head began to jerk and shake, then he backed up and fell over in a sort of fit, but soon recovered and commenced eating as if nothing had happened. I feed him milk, middlings and corn and am afraid of my other pigs becoming affected. (Continued on page 549).

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FOR SALE—75 Acre farm 30 mi. from Detroit near Gd. River Rd., rich loam soil, large nine room house, 3 barns, other outbuildings, good fences, level, well drained, a bargain at \$6000. FRED MILES, New Hudson, Michigan.

BUY A FARM—In Montcalm or Kent County where it pays to farm. All sizes and prices. Come and see for yourself. MICHIGAN FARM HOME COMPANY, Greenville, Michigan.

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154 Acres—10-room house, two barns, 30x40, 26x40 granary, hog house, ice house, milk house, all good condition. Apples, plums, cherries and pears, hundred thousand saw lumber, 2 miles to railroad town and milk shipping station to New York City. \$4500, part cash. HALL'S FARM AGENCY, Owego, Tioga Co., New York.

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BARRED ROCK COCKERELS—\$2.00 each, two for \$3.00, pullets \$1.00 each. **A. A. WOOD & SON, Saline, Michigan.**

BARRED ROCK COCKERELS—\$3 each, two for \$5. Large, farm raised. Winners for 10 years. **J. A. Barnum, Union City, Mich.**

Barred Rock Cockerels and Hens, Bargain Prices **W. C. COFFMAN, R. No. 6, Benton Harbor, Mich.**

PLYMOUTH Rock cockerels 5 lb. to 11 lb., according to age. Price \$2 to \$3. Mammoth Bronze Tom Turkeys 8 lb. to 35 lb., according to age. Price \$3 to \$25. Eggs in season. **A. E. CRAMTON, Vassar, Mich.**

PRIZE WINNING Barred Rocks, R. I. Reds, High Runners and Pekin ducks, \$5 per trio, circular free. **EMWOOD FARM, R. R. No. 13, Grand Rapids, Mich.**

COLUMBIA Wyandottes, Winners at Chicago, Grand Rapids, South Bend and St. Joseph. Stock and eggs. **RICHARD SAWYER, Benton Harbor, Michigan.**

PINE CREST WHITE ORPINGTONS won at State Fair 1st and 3rd cockerel, 1st and 3rd hen and 1st pullet out of seven entries. Stock for sale. **Mrs. Willis Hough, Pine Crest Farm, Royal Oak, Mich.**

A Fine bunch of Single and Rose comb R. I. RED COCKERELS for sale. Prices reasonable. **O. E. HAWLEY, R. No. 3, Ludington, Mich.**

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B. P. Rocks, R. I. Reds, and S. C. W. Leghorn eggs for sale. 15 for \$1.25 for \$1.50; 50 for \$2.50. **COLON C. LILLIE, Coopersville, Mich.**

SILVER, GOLDEN and WHITE WYANDOTTES. White Stock Especially good, send for circular. **Browning's Wyandotte Farm, R. 30, Portland, Mich.**

S. L. WYANDOTTES—Bred from great laying strain of blue ribbon birds. \$2 each. Satisfaction guaranteed. **F. E. Cowdrey, Ithaca, Mich.**

WHITE WYANDOTTE COCKERELS from heavy layers and thoroughbred stock. \$2 up. Write wants. **A. FRANKLIN SMITH, Ann Arbor, Mich.**

WHITE LEGHORN COCKERELS—Wyckoff strain. **Maple City Poultry Plant, Box C, Charlotte, Mich.**

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They hustle rats and rabbits. Small, medium and large. Prices and book mailed free. **NEWELL A. KNAFF, Rochester, Ohio.**

Turning Honey Crops Into Cash.

Experiences of a Young Bee-Keeper in Developing a Market.

Some men are natural born salesmen, while some attain a certain degree of ability as salesmen by practice who may not be gifted in that direction very much naturally. Then again, there are some who would never attain any success as salesmen if they tried ever so hard. To these latter I would say that it is best to sell your honey to some man who can handle the whole lot at once. It requires less salesmanship to do this than to retail it out. If you take a bee journal, or a good agricultural paper, which you certainly ought to do, you can easily find out what the market is, and if your honey is up to the standard you will have no trouble in selling it.

The other two principal ways of disposing of honey are to sell to the retail dealer or direct to the consumer.

In selling to the retail dealer one finds, perhaps, more need for good salesmanship than when selling direct to the consumer. This is because of the fact that the retailers make a business of buying and selling, are practicing it every day and are, as a result, highly proficient in this line. Before you sell to them you must know just what you want for your honey, what points of merit you can claim for it, and be able to show them that there is a chance to handle it at a profit. If you can prove this to them, to their satisfaction, they will usually try it. And right here let me caution you about a mistake many make. Don't urge a customer to take too much at a time. Sometimes you might induce a merchant to take on a stock of honey that he could hardly sell in the course of a year, and perhaps congratulate yourself on the big sale you have made, but it will usually prove the most unprofitable one you have made. Honey will keep in good condition only a few months unless handled by someone who understands it, which nine out of ten merchants do not. Generally if a merchant gets a lot of honey on his hands which becomes candied or otherwise out of condition for ready selling, he will soon become disgusted with the whole business and the next time you will find it hard to sell him at all. Better sell him a small order at a time—enough to last him a few months—and then be ready to supply him again at the close of that period. However, you will find some big dealers who understand handling it so well that it is safe to sell them a year's supply at once.

Selling Direct to the Consumer.

But if one is a good salesman, and has the time, the best way of all is to sell direct to the consumer. As I have had pretty fair success along this line, perhaps some of my experiences may be of help to others.

Several years ago, when I first came into this neighborhood and commenced to sell honey, I found that the principal bee-keeper here was selling his honey at from five to six cents per pound. We were both running for extracted honey, principally, but I also produced some comb honey and found that it was selling for about ten cents per pound for the best grade. Such prices were not profitable and, further, they were far below the markets outside.

At that time I knew nothing about how to ship my own honey at a profit, so I had to figure out a way to sell here and get something near what it was worth. I knew that if I could claim no merit for my honey that the honey of others did not possess I could not sell it for any better figure. So the first thing I did was to take a lot of pains in producing a superior article, allowing it to ripen thoroughly on the hive, getting my comb honey as nicely finished as possible, etc. The first year I had a lot of trouble in selling as I had put the price at eight cents for extracted and 12 cents for comb, which was two cents above the prices asked by my competitor. However, I managed to sell a pound or two in a place, occasionally, and I soon received repeat orders from these people. As I had only a small crop I managed finally to dispose of it all. The next year I raised the price to nine cents, and my competitor, taking advantage of the price I had made, also raised one cent. Comb honey was also advanced a little and I found much less trouble in selling than I had the year before. At present I am selling around home for ten cents, where the customer furnishes or returns the cans, and, although the other man still sells for eight, I find that I can sell in four out of five places I visit. The bal-

ance prefer to buy the other honey at the lower figure. This I consider much better than if I had tried to get the trade by underselling my competitor.

Enlarging the Consumptive Field.

However, this trade I have managed to secure from the other man's territory, which territory I really had as much right to as he, is the smallest part of the gain. The real gain is in the customers who have not been in the habit of buying honey at all, many of whom thought they did not like it, and many more who thought they could not afford it. Many of those who thought they did not like honey at all I have persuaded to try little samples of the different grades. When I have found a grade they like I have tried to remember which grade to sell them and some of these are among my good customers now. To those who think they cannot afford it I explain that, while honey has four times the food value of beef, pound for pound, it sells for less money, and that if used in the place of butter it will go as far and costs less. Also that it is economical to use for sweetening purposes in baking, etc., as such baked goods keep fresh much longer than when sweetened with sugar. As to the matter of health, I explain that while honey has all the great food value of sugar, which exceeds nearly all other foodstuffs, it is even better than sugar from the fact that it is pre-digested by the bees, making it much easier on the stomach. This process of pre-digestion which goes on in the honey stomach of the bee, converts the cane sugar of the nectar into the grape sugar of the honey. As cane sugar is actually poisonous to the system while grape sugar acts as a natural producer of heat and force without any of the bad

CARE OF GEESSE IN WINTER.

Geese will shift for themselves when forced to do so; but they do much better when given some attention all the year around, especially during the cold months.

When geese are not fed regularly and are otherwise neglected, they will not lay as many eggs, when the laying season arrives, and the eggs will not hatch as well as they should. It is not necessary to build expensive houses, but they should be given a dry comfortable place to stay at night. A large shed, or, in fact, almost any kind of an old building that is not in use, may be converted into a "goose barn." An open shed is not quite the proper place for geese when the mercury goes down to zero.

The writer once turned an old sheep shed into a winter house for a flock of geese. This shed, which was a sort of "lean-to," built at one side of a large barn, had no floor, but the ground was always dry. It was clean to begin with. A door was hung and two small windows put in. All open spaces in the siding were closed with pieces of lath for a distance of five feet from the floor. This kept the cold wind from blowing directly upon the geese. On cold blustery days the geese were kept indoors all day as well as at night. They soon became so accustomed to being driven to shelter that they learned to go of their own accord. We kept the earth floor well covered with straw and litter from the barn. The old sheep rack was used for roughage, such as clover, silage, etc., when no grass could be found in the fields. A water trough was placed inside of a rack at one end of the shed.

A goose will eat almost anything that cattle, hogs or sheep will eat except coarse hay. They like whole heads of clover; also wheat and oats in the straw. They seem to prefer raw food to any kind of cooked mash, although they will eat cooked vegetables when the latter are thoroughly mashed and then mixed with raw corn meal and bran.

It takes some time to get geese accustomed to any new ration. They like to eat what they have been used to eating. However, if they cannot have their usual ration they will gradually become accustomed to the new, when, as a rule, they will eat it with great relish.

Raw turnips and other roots, chopped rather small and mixed with bran and corn meal, make an excellent ration. When silage is fed, no vegetables are required. Some grain, either whole or ground, must be given several times a day, for best results.

We feed the geese grain twice a day—morning and evening—with some sort of green stuff or roughage to nibble at "be-

effects that often go with the consumption of sugar, it is evident that honey is much healthier than sugar.

How I Reach the Distant Consumer.

In the course of time my honey business outgrew my home market and I began to look for a larger one. As a beginning, I made an exhibit at the West Michigan State Fair and sold honey from the exhibit direct to the consumer, also in larger quantities to dealers, which latter was not delivered until after the fair. The honey from the exhibit was sold to consumers at about the same price they would have had to pay their dealers, and as I gave them a fancy article they were always well pleased. At the same time I secured a much better price than I could have done in any other way.

Since that time I have sold a large part of my honey in this way. The premiums usually pay all expenses of the trip, etc., and I sell a lot of honey at extra good prices. I have not only exhibited at Grand Rapids but also at Detroit and other large fairs.

The honey for this purpose is put up in several ways to suit the various needs of consumers. Some is carried in the large 60-lb. cans, some in gallon cans and some in five and 10-lb. pails. The rest of it is in glass jars bearing a neat label, mostly in pound and half-pound sizes.

In selling honey in this way one of the main requisites is to have it look tasty and neat, for honey may be ever so good but if not put up in a tasty manner it will not sell. In Grand Rapids I have a customer who keeps my honey in the house all the time, and as he is well acquainted there he sells an enormous amount of honey for me.

Many other ways of selling direct to the consumer will suggest themselves to the wide-awake producer, and in nearly all cases can be made to work to the advantage of both producer and consumer.

Mecosta Co. L. C. WHEELER.

tween meals," when they are housed in winter. Sometimes the grain is whole and sometimes ground. When the latter is used, we find it a good plan to add some cut clover, steamed, or some raw chopped cabbage, turnips, apples or anything of this nature that they will eat. We usually feed whole corn in the evening. Sometimes this is fed dry, and sometimes it is put into a shallow trough and covered with water, or, rather, the water is poured in first. Geese like to eat whole corn out of water. We always take the chill off the water when the weather is very cold.

Geese require grit, such as coarse sand, oyster shell, etc. We also provide plenty of charcoal and coal cinders.

Ohio. ANNA W. GALLIGHER.

CAPACITY OF HENHOUSE, BEST LAYERS, ETC.

I have a good chicken house 12x16 ft. and will add a sleeping apartment to it. How many hens can I profitably keep in this house? Would spring pullets be as good to lay as older hens this winter? What breed of hens is best for laying? Shiawassee Co. E. M. A.

The number of hens depends somewhat upon the construction of the house. If it is an open-front affair, insuring an abundance of fresh air at all times, it will be sufficient to allow 4 sq. ft. of floor space per fowl. Even a little less would probably answer in this case since the space you mention is only to be occupied by the hens during the day when the air and sunshine can be let in freely. Whether the fowls are of a large or small breed must also be taken into consideration, but, roughly, it may be said that the house, under the conditions described above, should accommodate about 50 hens of the medium or so-called general-purpose breeds. If the house is of the closed type, with rather inadequate facilities for ventilating, a larger allowance of floor space must be made. Before the advent of fresh-air poultry houses it was customary to allow from 5 to 6 sq. ft. of floor space per fowl. Now some users of open-front houses are giving not more than 3½ sq. ft.

Pullets that were hatched as early as April or May and so cared for as to make steady growth and development should be laying now and, with proper feeding, should prove excellent egg producers throughout the winter. They can hardly be expected to do as well as hens of last year's hatching but should prove far superior to older hens.

There are many good laying breeds. The Leghorns are generally credited with being the most prolific layers but there are strains of many other breeds which, in the long run, are equally satisfactory.

VETERINARY.

(Continued from page 547).

ed. F. H. M., St. Louis, Mich.—If you will feed your pigs warm sloppy food in shallow trough, they will not choke and have this fatty condition occur. Give some ground gentian in their feed, a teaspoonful to each pig three or four months old, once or twice a day.

Mule Has Sluggish Kidneys.—I have a five-year-old mule which for about a year has been bothered by spells with weak kidneys and a portion of the time the urine is thick and cloudy; besides, she does not pass enough water. I have thought she showed the effects of pain before urinating. I have given her medicine which gave relief for a few weeks, but I would like to know what you prescribe as a remedy that will effect a permanent cure. B. F. W., Ludington, Mich.—It will be necessary for you to give your mule some medicine occasionally to stimulate kidneys into action. Buchu is a mild and useful diuretic, but it is too expensive; therefore you had better give a teaspoonful of powdered saltpeter at a dose two or three times a day for a few days, then occasionally give it when you believe it necessary. Also give a tablespoonful or two of cooking soda at a dose in feed twice a day.

Cow Gives Bloody Milk.—I have a ten-year-old cow that freshened one week ago which has given bloody milk. This cow gave bloody milk a year ago when she came fresh. T. B., Sullivan, Mich.—Feeding too much nutritious food to some cows has a tendency to cause them to give bloody milk; however, it can generally be traced to an accident, at which time the udder is bruised. Make an effort to ascertain the cause, then remove it and she will get well. A little blood in the milk will do no harm. Apply one part tincture arnica and eight parts cold water to udder three times a day.

Elephantiasis—Chronic Lymphangitis.—I have a 13-year-old horse that had an attack of farcy some four years ago and it left one hind leg enlarged; since then the leg seems to have increased in size and at different times opened and discharged pus. Whenever this horse has sore neck he is ugly to handle, we have to rope him and he occasionally falls down while resisting us. If you can give me any advice that will benefit him, I shall be glad, for he is a useful work horse. S. E. G., Chilson, Mich.—Your horse first suffered from lymphangitis and has doubtless had frequent attacks since, it being a chronic ailment, it is doubtful if treatment will benefit him much. After the leg becomes very large, the animal always has difficulty in getting up, when down. Give him a dessertspoonful of Donovan's solution three times a day and a teaspoonful of powdered nitrate of potash. His bowels should be kept open, he should have daily exercise and some vaseline applied to skin to soften it.

Sprained Tendon—Fistula.—I have been watching the veterinary column for some time for a remedy for my eight-year-old mare. The tendon of her right hind leg is badly sprained. She is able to work about half of the time. I have blistered it severely, applied liniment; have also had her shod with high heel. All my efforts have failed so far, except affording her temporary relief. She also has two openings in between jaw bone, so when medicine is injected in one opening it comes out of the other. I also think some of it passes into the mouth. I do not know the full history of this case. Have injected iodine, but it fails to do much good. Would I dare use concentrated lye? O. McE., Pompei, Mich.—In my practice I always fire a tendon of this kind and invariably obtain much better results from it, than from counter-irritants and blisters. Have her fired by a competent Vet. and give her 60 days rest and I believe she will stand up and do ordinary work the balance of her life. A fistulous tract with two openings is always difficult to heal and before you can obtain a union of the parts you will have to cut out the sinews by applying a caustic, either pack it with burnt alum or sulphate of copper; or, if you can open skin between the open ends and make a raw sore, then it will heal. This case really requires the attendance of a veterinary surgeon. Packing with powdered alum might effect a cure; however, it is doubtful. You should not use concentrated lye.

Bone Spavin Lameness.—I have a lame horse, one Vet. said the lameness is in hip joint, the other locates it in hock and says swollen joint is caused by poor circulation. The leg stocks and it all works out with exercise, except hock joint. The joint cracks when first taken out of stable and he shows lameness for a short distance. C. H. L., Carsonville, Mich.—I am almost inclined to believe the lameness to be in hock joint and if you will apply one part red iodine mercury and eight parts lard to entire joint every week and give him rest, I believe he will recover. Give him 1 dr. sodium salicylate at a dose in feed twice a day.

Mange.—My cattle have some kind of skin disease mostly affecting head and neck. They do not appear to itch, but the disease appears to be spreading. D. T. K., Bellaire, Mich.—Apply one part sulphur, one-half a part carbonate potash and three parts fresh lard to sore parts of skin every day. Give a teaspoonful of sulphur at a dose in feed twice a day.

Obstruction in Teat.—I have a cow that came fresh the first of the month and one of her teats has a growth in the upper part which makes it impossible to milk her without the use of a milking tube. What can be done to remove the obstruction? B. M. H., Fowlerville, Mich.—In my practice I invariably cut in and remove bunch of this kind; however, an operation of this kind must be done right and under septic measures, or else you will have trouble in healing wound; besides, a stricture of teat canal may follow. Try applying one part iodine and

eight parts fresh lard to teat directly over bunch every day or two.

Wart on Teat.—In reply to my question how to remove a wart from a cow's teat, you advised me to cut it off. I do not like to do this if it can be otherwise removed. Two years ago I wrote you of a like growth on the teat of another cow, calling it a tumor, and was advised to use a preparation of iodine with lard, which removed it, but I have forgotten the formula. The present growth is as large as the end of my thumb. J. H. K., Okemos, Mich.—By applying one part iodine and eight parts lard every day or two, or applying lunar caustic every day or two, you will be able to remove the bunch. Why don't you tie it off with a silk or linen thread tightly pulled around its base?

Weakness.—We have an eight-year-old collic bitch that for the past year has had some sort of kidney trouble. She may be all right for a month and then for a week or two, or even more, urine will leak from her as if she had no control of her bladder. She eats well and seems healthy otherwise. Mrs. G. H. H., Plainwell, Mich.—Give her 5 grs. urotropin and one-sixtieth of a grain of strychnine at a dose three times a day.

LIVE STOCK NEWS.

Prof. W. J. Kennedy, of the Iowa State College, says: "Hog cholera cost the country almost one billion pounds of meat last year—enough to supply ten pounds to every man, woman and child in the United States. The bearing of this upon the cost of living is apparent. The loss in Iowa alone amounted to 150,000,000 lbs. of pork. This year the loss will be still greater. Iowa farmers will lose \$20,000,000 because of the disease."

It is generally expected that with severely cold winter weather, the awful ravages of the hog cholera will be stayed. In past years it has raged the worst during the months of September and October. In west central Illinois farmers report that the careful use of serum has worked wonders in checking the malady. Reports come from Iowa that the state serum factory plant, recently built at a cost of \$20,000, is now behind a month and a half in furnishing serum to farmers, having pens for handling 1,000 pigs.

A. J. Lovejoy, the president of the International Live Stock Exposition, lives on his large farm in Roscoe, Ill., where he is mainly occupied in breeding Berkshire hogs. He is widely known as one of the celebrated swine breeders of the United States.

An extremely important effect of the removal of the United States duty on wool on the first day of December is found in the extensive purchases of sheep made recently by Western Canadian sheepmen for breeding purposes. It is learned that one big breeder in the northwestern province of Alberta purchased quite recently 24,000 head in this country, while several flocks ranging from 30,000 to 40,000 head have been acquired within the last few weeks by sheep ranchers of Saskatchewan.

About 75,000 Texas calves have been moving from the breeding districts of that state towards the feeding districts of the corn belt, Illinois, Indiana and Ohio receiving most of them.

Most of the good beef cattle imported from Canada under the new tariff law have come from the province of Alberta, and most of the Ontario cattle brought over were thin stockers or poor canner cows that were painfully thin. Canada has a very short supply of beef cattle, with none that can be spared for exportation.

BREEDERS' DIRECTORY.

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Practical Science.

EGGS AS A FOOD.

BY FLOYD W. ROBISON.

(Continued from last week).

Average Per Cent of Good Eggs Too Low.

As we stated in our previous discussion, there are only between 50 and 70 per cent on the average, of all the eggs marketed, that will grade No. 1. From 30 to 50 per cent of the eggs are divided among the other four classes: Dirty eggs, No. 2, cracked eggs, and rotten eggs. With proper care in the production of the eggs, the class called dirty, and also No. 2, could have been included with grade No. 1, and with more care in the handling it seems as though the percentage of cracked eggs could have been materially lessened. From four to 20 per cent loss due to the cracking of eggs in packing or in transit is a pretty heavy toll to pay for careless handling.

If this Loss were Prevented How would it Affect the Market?

It is interesting to contemplate what an effect it would be on the egg market and possibly on the price to the consumer if this 25 per cent, or even 10 per cent, of eggs which, through the result of carelessness, graded lower than No. 1, could be included as No. 1 and hence, being marketed, have their effect on the egg consumption. We do not think that there will be enough eggs under any condition marketed in this country for a number of years to in any material way lower the price to the general consumer but in more remote American cities, such as New York particularly, or even in cities like Detroit, the cost of eggs to the retailer is too much to warrant a healthy stimulation of the market. Too many families go without eggs because the price is prohibitive, whereas if enough eggs could be marketed to hold the price 10 per cent lower, a much greater consumption of eggs would, in our judgment, take place. The Producer is Much to Blame for Egg Deterioration.

There is no use denying the premise that most of the blame for egg deterioration rests with the producer himself. We have just the same battle to combat in egg production that was prevalent in the production of dairy butter. It is now well known that the greatest menace to the dairy industry is the one, two or three-cow dairies. In an exactly analogous way the greatest menace to the egg industry in this country is the small flocks of chickens kept as an incidental feature of farming on the majority of American farms. In this respect it is no secret among business men that the average farmer is the most prodigal of business men, and if an ordinary business were conducted with the same degree of wastefulness and inattention to business details that prevails on many of the farms, it would mean ruin.

Large Poultry Units will Solve the Problem.

There was a time not very far distant when the dairy butter that was sold was in sufficient quantity to entirely control the market on butter, and there was no greater variety of product in existence than dairy butter. A consumer in the city, buying butter, one day had absolutely no idea of what kind of a product would be served to her the next day under the general term butter, and it was not until there became organized creamery associations and local creameries where farmers brought their milk to be made into an average community product by an expert butter-maker that butter began to take its proper place among marketable products. This same condition exists in relation to eggs, today. The whole difficulty, we venture to say, over the question of quality arises principally because of this condition which we have described. The solution seems at hand. It is the creation of larger poultry farm units and consequently the increased attention to poultry and egg production as a business that is going to be the solution of the dilemma.

Egg Producers Must Take Pride in their Business.

There is no excuse for the marketing of a class of eggs called dirty eggs, neither is there an excuse for the marketing of a class of eggs called No. 2. There is no consumer who will not pay more for good sized eggs than for those that come soiled and of all sizes, to her hand. We think then, the first requisite in egg production is the selection of a standard, staple breed of fowls in exactly the same way

that we maintain that the first requisite in dairying is the selection of a standard, staple type of an animal.

The egg business carries with it, of necessity, a poultry marketing business as well, for there comes a time in the growth of the young chicks when it becomes desirable to market all of the males of the flock and this may become a source of considerable profit if taken up in the same intelligent way that we are advocating in the handling of eggs. It is now no longer a secret that egg production is not diminished by the absence of males from the flock. In fact, a non-fertile egg, other things being equal, has much better keeping qualities than does a fertile egg. An unfertile egg will become stale if kept a long time but it will not develop rots and the peculiar other phenomena, such as blood rings, etc., that are common causes of egg deterioration in ordinary market eggs.

Prompt Marketing is Essential.

After attention has been paid to the details of egg production, the fowls have ample room for exercise, and have clean nests and opportunities for keeping themselves clean and in good health, the next requisite is the prompt marketing of the eggs. Of course, with our ideas of handling of fowl there will be no lost nests and no opportunity for the one who gathers the eggs to come suddenly upon a nest containing 12 or 14 eggs that he did not know existed. Prompt marketing will reduce materially the percentage of stale or bad eggs. Another vicious practice which has done much toward keeping the egg business an incidental business, has been the system prevailing in many places of using eggs as a sort of currency. Merchants buy eggs, expecting the seller to take his pay in merchandise at his store. In this way, because of the fact that he wants the business of the producer he will pay for the eggs without regard to quality. In other words, he will pay the producer by count instead of rejecting the eggs which are inferior or often bad. The egg business should be a cash business just the same as the milk business is a cash business, and only those eggs which are valuable should be purchased or they should be graded according to their quality.

The Cold Storage of Eggs.

It used to be quite a common practice among farmers to put down eggs, as it is called, or pickle them in some way during the flush of the season so that they could be used or placed on the market during the off season. These eggs as a rule, are very much inferior. A new system has arisen in this country to take the place of this procedure. This is the cold storage system. This system has been made to take the blame for practically all of the inferior eggs which are now on the market. It is very common to hear a consumer enjoin the market man that he must not under any circumstances furnish him with cold storage eggs. In the mind of the ordinary consumer cold storage eggs are inferior eggs. We think that the companies operating the cold storage houses are not blameless by any means in this matter, for all too frequently eggs have been held in cold storage when they had materially depreciated in quality and then suddenly the market was flooded with this class of eggs so that the popular opinion of the meaning of cold storage is an opinion for which the cold storage operators themselves are in a considerable degree too blame. We think cold storage is one of the factors helping to an intelligent and proper solution of the egg marketing business. The time to place the eggs in cold storage is when they are fresh. Eggs which have begun to deteriorate are not fit to be placed in cold storage, for no system of storage or preservation will make a bad egg good. The best that can be hoped under ideal conditions, is that deterioration may be checked and not permitted to go further, but as soon as a fermentative process has started in an egg, or an enzymic change commenced, cold storage will not entirely check the same and such eggs invariably come out of cold storage worse than they were when they went in. If, however, eggs of good quality are put into storage when perfectly fresh those eggs, if properly cared for and put upon the market when they should be upon the market, will be much better by far than any of the ordinary eggs which are commonly designated by the term "fresh."

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Grange.

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

THE DECEMBER PROGRAMS.

Suggestions for Second Meeting.

Music.
Down-to-date question box on foods and feeding. (Members number about the hall and odd numbers ask questions for even numbers to answer).

Review of 1913 in notable public events.
Christmas poetry, by children and others.

Music.
Roll call, responded to by each giving a motto.

Christmas exchange of good wishes.

NATIONAL GRANGE NOTES.

The biennial election of officers resulted in the choice of the following: Master, Oliver Wilson, Illinois; overseer, W. H. Vary, New York; lecturer, G. W. F. Gaunt, New Jersey; steward, F. C. Bancroft, Delaware; ass't steward, J. A. Sherwood, Connecticut; chaplain, A. P. Reardon, Kansas; treasurer, Mrs. E. S. McDowell, Massachusetts; secretary, C. M. Freeman, Ohio; gate keeper, C. L. Rice, Minnesota; Ceres, Mrs. Richard Pattee, New Hampshire; Pomona, Mrs. J. C. Ketcham, Michigan; Flora, Mrs. J. A. Peckham, Rhode Island; Lady Ass't Steward, Mrs. H. Harland, Idaho; member of executive committee, A. B. Judson, Iowa.

The proposed amendment to the constitution to the effect that subordinate Granges must hold at least one meeting each month, and at least six regular or special meetings per year, received favorable action by 12 State Granges, while two voted against it. As the amendment did not receive the necessary two-thirds vote, it was lost.

The Grange decided to retain \$100,000 in the treasury for permanent investment, and to use the surplus, after expenses are paid, for Grange organization at the rate of not over \$2,000 for present Grange states, and \$5,000 for states not now organized.

In regard to taxation the Grange declared for uniform tax laws in all of the states to prevent tax dodging from one state to another.

Last year a resolution creating a Bureau of Information, with the secretary of the National Grange at its head, was adopted. In response to a circular letter to the secretary of each State Grange in regard to this, the State Granges of Illinois, Iowa, Nebraska and Ohio reported that they had voted to establish such bureaus. New Jersey did not think the plan suited to their needs, but they were doing some co-operative work. Maryland reported no information bureau, but sent a copy of a trade notice sheet which they were using. Kansas reported that they had been working along this line, had been gathering information from all over the world as to co-operative movements, and were looking for a man to head this bureau who knows something of agricultural economics, but more particularly of the commercial operations of the country, marketing problems, etc. They have also been trying to put growers in correspondence with buyers, and in this way have assisted in the selling of several hundred cars of apples, corn and alfalfa. Michigan reported the appointment of a special deputy who stands ready to go to any community and assist in the organization of co-operative selling associations for the marketing of such farm products as can be handled in carload lots.

Secretary of Agriculture Houston addressed the Grange on one of the early days of the meeting, his subject being "The Organization of American Agriculture." In sizing up agricultural conditions he stated that less than 40 per cent of the cultivated land in the United States is reasonably well cultivated, and that less than 12 per cent is yielding maximum returns. He regretfully referred to the fact that we have ceased to be a nation exporting food products and are becoming dependent upon foreign countries for the necessities of life, but contended that we have not reached the limit of our output from the soil—as a matter of fact have not reached the end of the pioneer stage. So absorbed have we become in building up great industrial centers that we have neglected and failed to think of the very foundations of our industrial existence, and he declared that the same business sense and organizing genius that have placed the nation in the

front rank of industry must be invoked to the benefit of agriculture. The remedy for the high cost of living and the meagre production of the soil, he contended, lies in the correction of the existing chaos and consequent wastes resulting from faults on the part of the farmer in the growing and handling of his products; from the machinery of distribution, including physical equipment and physical handling; from the manipulation of middlemen who perform no useful and necessary service; from ignorance on the part of the consumer of the character of the supplies which come to his table; from jealousies which exist in many states between state agricultural commissions and agricultural colleges and the consequent duplication of work in many localities. As an instance of the Department's endeavor to eliminate waste, the Secretary stated that in the estimates just submitted to Congress it has been recommended that the distribution of ordinary vegetable and flower seeds be discontinued and that part of the \$300,000 heretofore devoted to this purpose be used to procure, propagate and distribute among the people, new and valuable seeds and plants. He is clearly opposed to the multiplying propositions, touching the much discussed question of rural credits, which conceive the farmer to be a mendicant and a subject for special legislation, but will lend his support to any proposition which will assist in creating conditions and machinery which shall enable the farmer, on a similar credit foundation, to secure his money at the same rates as any other class in the community. He detailed the plan of investigation in the field of marketing which the Department has under way, and closed with a strong plea for co-operative action and rural organization.

Memorial services were held Nov. 15 for the following prominent members of the order who have died during the year: O. H. Kelley, founder of the Grange, who died in February; Robert Eaton, master of Illinois State Grange; David L. Russell, past master Washington State Grange; Levi Booth, past master Colorado State Grange; Richmond Coles, past master New Jersey State Grange; Samuel A. Houston, past master West Virginia State Grange; Sister Adams, wife of Samuel E. Adams, past master National Grange; Sister Patterson, wife of B. C. Patterson, past master Connecticut State Grange.

HOME-COMING AND THANKSGIVING MEETING.

On Saturday, November 22, the fortieth anniversary of Williamston Grange, of Ingham county, was observed by a Homecoming and Thanksgiving celebration participated in by about 100 present and former members and their friends. An appropriate Thanksgiving program was rendered in the forenoon, the feature of which was a talk on "What has the Grange to be thankful for?" by John Dexter. Crop yields in this part of the country, as compared with those in other parts, were mentioned, as were the generally favorable weather conditions here and our dependence upon that higher power which shapes and directs all things. Bro. Dexter also commented on the growth of the Grange and of the good effect of teaching agriculture in public schools. All these he summed up in an able manner as blessings which we farmers enjoy. A sumptuous chicken-pie dinner was served at noon upon tables beautifully decorated with yellow and white chrysanthemums and maiden-hair ferns. The afternoon program was given over to the home-comers, Master Leon E. Webb making the welcoming address in which he reviewed the history of the Grange from its inception, described its early struggles for existence and characterized it as the greatest organization ever started for and by farmers. The response was made by Stanley Clafin, of Locke Grange, who spoke particularly of the Grange's good influence in keeping boys and girls upon the farm. The roll call of the first Grange was given by Mrs. Margaret Webb. There are only nine members living and two of these—Mrs. Amelia Webb and Mrs. Margaret Webb—were present. The roll of old members was called by A. E. Andrews, Mrs. Amelia Webb thanking the present Grange, in the name of the charter members, for the invitation to this meeting. The roll of present members was then called by the secretary. "The Product of the Grange" was the subject of the last talk, delivered by Past Master W. T. Webb, who told of the organization of the Grange in the basement of the Methodist church in Williamston. Its first master was Bro. John Grimes. At times there were only a few members but those few kept struggling to keep the Grange together. Then he showed how a Grange is a great help to a community, socially, financially and educationally. Without bringing partisan politics into the organization it can oppose what its members do not want from the Legislature and by approving desirable measures can become a factor in government. A few musical numbers closed this program and a meeting which will long be remembered as the most enjoyable held by this Grange.—Hazel Pfeifle.

Special Bargain Combinations.

We have arranged here a list of special bargain combinations which will save you considerable on your reading matter. No substitutions of other magazines which are the same price can be made. You must take the entire combination just as it is. You can make up your club from the club list if none of these suit you. Each paper of a combination can be sent to a different address, thus making it possible to divide a combination among friends or relatives as Christmas gifts. A good publication makes an excellent Christmas gift.

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Michigan Farmer's Club List.

For the benefit and convenience of our subscribers we have arranged the following list of papers on which we can save them money. Besides the money, they save the trouble and expense of sending each order separately.

EXPLANATION—The first column is the regular subscription price of the other papers. The second column gives our price for a year's subscription to both the Michigan Farmer and the Michigan Farmer. The third column gives the price at which the other paper may be added when three or more are ordered. If price is not given in this column ask us. Example: We will send the Michigan Farmer and Detroit Semi-Weekly Journal for \$1.50. If, for instance, McCall's Magazine also is wanted add it at 40c making total \$1.90. Any number of papers may be added at third column price if they are for a subscriber to the Michigan Farmer.

If you want the MICHIGAN FARMER THREE YEARS and the other papers one year add 75c to the second column price. For the Michigan Farmer 5 years add \$1.50. We do not send samples of other papers. Address the publishers direct.

Send all orders to the Michigan Farmer or through our agents.

We will take your order for any publication you want whether listed or not. Write for rates.

NOTE—So long as a subscriber is on our list for one or more years he may order at any time any publications at third column price. So that a three of five year subscriber does not lose the advantage of the reduced price if he wants any other paper next year or the year after. Subscriptions ordered to Canada require postage. Write for rates unless postage is known, in that case include with order. Postage on Michigan Farmer alone to Canada is 1 cent per week.

NAME OF PUBLICATION.	See explanation above.
Daily, (6 a Week) on R. F. D. only.	\$ \$ \$
Free Press, Detroit.....	2 50 2 50
Journal, Detroit.....	2 50 2 50
Times, Detroit.....	2 00 2 00
Herald, Grand Rapids.....	2 50 2 00
Press, Grand Rapids, Mich.....	2 00 1 75
Courier-Herald, Saginaw.....	2 50 2 25
News-Saginaw.....	2 00 2 25
Tribune, Bay City, Mich.....	2 00 2 10
Blade, Toledo.....	2 00 2 05
News-Bee, Toledo, Ohio.....	2 00 2 05
State Journal, Lansing.....	2 00 2 00
Tri Weekly Newspapers	
World, N. Y., City.....	1 00 1 20 75

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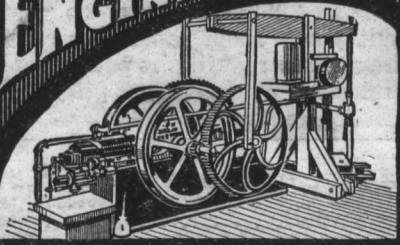
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Weekly Newspapers		
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Commoner, Lincoln, Neb.....	1 00 1 00 55	
Enquirer, Cincinnati, O.....	1 00 1 00 55	
Inter Ocean, Chicago, (w).....	1 00 1 00 55	
Produce News, Chicago.....	1 00 1 05 60	
Cattle, Sheep, Swine, Poultry, etc.		
American Poultry Journal, Chicago, (m).....	1 00 1 20 75	
American Poultry Advocate, Syracuse.....	50 80 35	
American Sheep Breeder, Chicago (m).....	1 00 1 35 90	
American Swineherd, Chicago (m).....	1 50 1 75 35	
Breeders' Gazette, Chicago, (w).....	1 50 1 45 1 00	
Farm Poultry Boston, Mass. (s-m).....	50 80 35	
Fruit Belt, Grand Rapids, Mich.....	1 00 70 25	
Green's Fruit Grower, Rochester, (m).....	50 80 35	
Hoard's Dairyman, Fort Atkinson, Wis.....	1 00 1 20 75	
Horseman, Chicago, (m).....	1 00 1 20 75	
Jersey Bulletin, Indianapolis, Ind. (w).....	1 00 1 25 90	
Kimball's Dairy Farmer, Waterloo, Ia. (s-m).....	1 00 1 05 75	
National Sportsman, Boston, Mass. (m).....	1 00 1 15 70	
Poultry Keeper, Quincy, Ill. (m).....	50 80 35	
Poultry Pointers, Kalama zoo Mich.....	50 70 25	
Poultry Success, Springfield, O. (m).....	50 80 35	
Reliable Poultry Journal, Quincy, Ill. (m).....	50 80 35	
Swine Breeders' Journal, Indianapolis, Ind. (s-m).....	50 80 35	
Popular Magazines.		
American Magazine, N. Y. City, (m).....	1 50 1 60 1 15	
Collier's Weekly, N. Y. City.....	2 50 2 50 2 50	
Everybody's Magazine, N. Y. City, (m).....	1 50 1 60 1 15	
Etude, Philadelphia, Pa. (m).....	1 50 1 30 1 15	
Mechanical Digest, Grand Rapids (m).....	50 80 35	
McClure's Magazine, N. Y. City, (m).....	1 50 1 60 1 15	
Musicalian, Boston, Mass. (m).....	1 50 1 55 1 15	
People's Home Journal, N. Y. City, (m).....	50 80 35	
Pearson's Magazine, New York City, (m).....	1 50 1 55 1 10	
Red Book Magazine, Chicago, Ill. (m).....	1 50 1 55 1 10	
Review of Reviews, N. Y. City, (m).....	3 00 3 00	
Ladies' or Household.		
Delineator, N. Y. City, (m).....	1 50 1 60 1 15	
Designers, N. Y. City, (m).....	75 1 05 80	
Housewife, N. Y. City, (m).....	50 80 35	
Ladies World, New York City.....	1 00 1 00 60	
McCall's Magazine, N. Y. City, (m).....	50 85 40	
Mother's Mag., Elgin, Ill. (m).....	1 50 1 55 1 15	
Modern Priscilla, Boston, Mass. (m).....	1 50 1 25 80	
Pictorial Review, N. Y. City, (m).....	60 1 40 35	
Woman's Home Companion, N. Y. City, m.....	1 50 1 40 1 15	
Womans World, Chicago, (m).....	25 60 15	
Religious and Juvenile.		
American Boy, Detroit Mich. (m).....	1 00 1 00 65	
Boys' Magazine, Smethport, Pa. (m).....	1 00 1 05 70	
Little Folks, Salem, Mass. (m).....	1 00 1 45 1 00	
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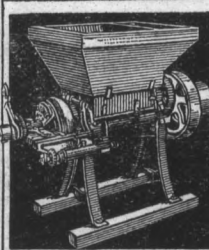
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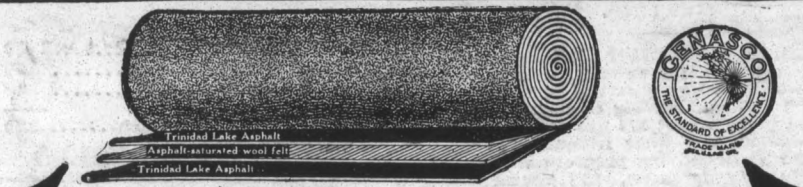
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