

GRANGE VISITOR

"THE FARMER IS OF MORE CONSEQUENCE THAN THE FARM, AND SHOULD BE FIRST IMPROVED."

VOL. XX. NO. 8.

CHARLOTTE, MICHIGAN, APRIL 18, 1895.

WHOLE NO. 464.

Alum in Baking Powders.

Dr. R. C. Kedzie recently wrote the following article which was published in the *Lansing Journal*:

The discussions before the legislative committees and in the public press on baking powders have aroused the curiosity of the citizens of Lansing and awakened a desire to know the kinds and qualities of the baking powders now sold and used in Lansing. To furnish this information, all the baking powders on sale in this city were purchased in the leading groceries and submitted to examination—seventeen in all. The per cent of available carbonic acid was carefully determined in each baking powder. This is a most important matter, for the available carbonic acid is the leavening property of a baking powder; and no matter what else a baking powder may contain, it is valuable in proportion to the amount of its available carbonic acid and is useless for a baking powder if it does not afford a good supply of this gas; it is for this alone that the powder is used. The percentage of available carbonic acid in these baking powders found in Lansing is shown in the following table.

A determination was also made of the acidifying material in these powders. Cream tartar acid, phosphate of lime, or alum and phosphate. Two contained cream of tartar, one acid phosphate and fourteen alum and phosphate. It was a surprise to find so large a proportion of alum baking powders and to find how poor most of them were in available carbonic acid.

Analysis of alum-phosphate baking powders:

	Per cent of carbonic acid.
1 Snow Drift.....	4 98
2 Calumet.....	8 75
3 Vienna.....	7 60
4 Early Riser.....	2 35
5 Electric Light.....	4 85
6 Cream Flake.....	9 98
7 Immense Value.....	8 61
8 Our Daily Bread.....	8 35
9 New Era.....	6 68
10 Mammoth.....	8 40
11 Our Pride.....	10 75
12 Purity.....	6 35
13 Crown Jewel.....	5 00
14 Kenton.....	9 10

Fourteen alum baking powders average of CO ₂ per cent.....	7 20
15 Horsford's Acid Phosphate, per cent.....	13 00
16 and 17 The Royal and Price's Cream Baking Powders, two cream tartar baking powders, average per cent.....	13 35

It will thus be seen that the cream tartar baking powders have nearly twice the leavening power of the average alum baking powders. If the cream tartar powders cost more, they are worth more.

ALUM BAKING POWDERS IN RELATION TO DIGESTION.

This is a much more important subject than any deficiency of available carbonic acid. In one case we are cheated, in the other we are injured. Standard authorities are agreed that alum retards digestion, and that soluble albuminous compounds are injurious to the animal system. The advocates of alum powders seek to offset this by the claim that the alumina in the baking powder is precipitated by the chemical reactions taking place when the powder is put into water, becomes inert and passes through the digestive track like any foreign but innocuous substance. This is their theory, but the question arises, do facts sustain this theory? A single fact is worth more than a blooming bouquet of theories. To test theory by fact, an ounce of each of these baking powders was placed in eight ounces of water and allowed to stand for two or three hours till the chemical reactions caused by the presence of water were completed; the water filtered off and ammonia water added to this water to precipitate the alumina if any remained in solution. A gelatinous precipitate of hydrate of alumina was produced in every instance from these alum baking powders, showing that the claim that the alum is all precipitated when these baking powders are used is contrary to the fact. This pre-

cipitate was carefully washed, dried, and ignited, and from the weight of this alumina, the weight of a corresponding number of crystals of ammonia alum was calculated, because people are more familiar with alum than with "anhydrous alumina." This precipitate is not chemically pure hydrate of alumina, as it contains a very small amount of phosphoric acid and traces of lime, but the principal part is the hydrate of alumina.

The number of grains of this substance obtained from the watery solution of one ounce of each baking powder is given in the following table.

Portion of alum remaining in solution where one ounce of each baking powder is placed in eight ounces of water; calculated to corresponding weight of crystals of ammonia alum:

	Grains.
1 Snow Drift.....	16 53
2 Calumet.....	15 88
3 Vienna.....	40 60
4 Early Riser.....	25 00
5 Electric Light.....	29 31
6 Cream Flake.....	28 45
7 Immense Value.....	12 22
8 Our Daily Bread.....	5 69
9 New Era.....	12 19
10 Mammoth.....	36 04
11 Our Pride.....	20 73
12 Purity.....	5 70
13 Crown Jewel.....	29 71
14 Kenton.....	25 53

Average..... 21 69
Anyone glancing over this table can make up his mind whether he wants to swallow in his daily food the equivalent of so many grains of alum for every ounce of baking powder used.

WHICH IS MORE INJURIOUS TO HEALTH, CREAM TARTAR OR ALUM?

The champions of alum baking powders claim that the cream tartar baking powders are injurious to the animal system because of the cream tartar they contain. To show the absurdity of this claim we only need to recall the fact that cream tartar is found in many of our delicious fruits, such as the tamarind, the mulberry, the pineapple, and especially grapes. The cream tartar of commerce is derived from grapes, but everyone knows that the grape is one of our most healthful fruits. The cream tartar is formed in the grape juice, but crystallizes out from the wine because it is insoluble in dilute alcohol. As compared with the glauber salts, sulphate of ammonia, and alum, the cream tartar is greatly to be preferred on the score of health.

If any candid person will compare the composition of these two classes of baking powders, there will be little question which to choose. Take for example a cream tartar baking powder of high quality, such as the Royal or Price's, the acid principle derived entirely from grapes—a fruit so wholesome and health giving that physicians prescribe the "grape cure" to restore health to broken invalids and recognized in all ages as one of our most healthful fruits—free from every trace of alum, lime, ammonia, and every material injurious to health, and with leavening power of highest quality, and compare this class of baking powders with those of the alum class now found in Lansing—deficient in leavening power, uncertain in action, and leaving a varying, but often considerable amount of aluminous material in solution to retard digestion and promote dyspepsia—it would not seem difficult which class to choose for use in the family.

Alumina is not a normal constituent of the animal system, nor is it found in the higher forms of vegetable life. It is dead matter, and has no place in food to sustain human life.

LET YOUR LIGHT SHINE BEFORE MEN.

The alum advocates claim that their powders are so superior to those containing cream tartar, that when people come to know their excellent quality they will use them in preference to all others. Why are these alum men so modest and retiring? Why don't they let their light shine before men? Why not take every means to let people know that their baking powders contain the life giving alum and not a particle of the dreadful cream tartar?

Our legislature should come to the rescue of these blushing and shrinking manufacturers and compel the public to recognize the claims of their goods and cause them to be known by all men. Pass a law for this purpose requiring all baking powders sold in this state to be properly labeled—"This baking powder contains alum?" or "This baking powder contains cream tartar," as the case may be. This would not compel any company to "divulge the secrets of their formulas," but would notify the public of a very important fact concerning the composition of baking powders. Such a course would be frank and honest and give the public the information which they have a right to demand and which would soon settle the war of the baking powders.

Farmers and the Legislature.

The Way They do it in New Hampshire.

The farmers in the state legislature this year, although about as numerous as ever before, have exercised less direct and positive influence in the disposition of matters materially affecting their interests than has been the case for some time past. This is, undoubtedly, because of their failure to effect a thorough organization among themselves and act together upon all such matters. The "Farmers' Council" in the legislature of 1891 was a controlling power in that body. Although less influential in 1893, it was a formidable organization then and made its influence felt in many cases. This year it has had practically no influence at all, and has, in fact, sought to accomplish little or nothing, its existence being merely nominal. Had the farmers this year been as thoroughly organized and energetic as was the case four years ago, it would have been practically impossible to have secured the passage of the bill reducing the taxation of savings bank deposits—a measure undoubtedly detrimental to agricultural interests in general, and which passed the house without substantial opposition. Railroads and other corporation interests never fail to have an eye upon the movements of legislatures throughout the session, and have their forces well in hand both within and without the legislative body, so as to be sure, if possible, that nothing is done or left undone which they regard necessary, either to prevent or carry out, to promote their own advantage. In this they do nothing but what is naturally to be expected, and nothing of which farmers have any right to complain. It only behooves them to organize for the promotion of their own interests in like manner, and to make the same their prime object and purpose, taking care also that none but good and true men, of recognized ability and faithful to their cause, be elected to the legislature, wherever they have power to control the election.—*New Hampshire Agriculturist*.

The Grange.

One thing that makes the Grange strong today is the large number of members who, by long drill and experience, have become accomplished public speakers and efficient in conducting public meetings in almost any capacity. They also become thoroughly posted upon the condition of agriculture and the influences at work for and against it, and are capable of discussing the various topics that come to the front from time to time. The benefits of the Grange to the sons and daughters of farmers in the lines indicated are not to be compared with the trifling expenditure entailed by membership. Exercise strengthens and develops. Disuse weakens and destructive. Encourage your sons and daughters to attach themselves to organizations that will educate and develop them into men and women of influence and usefulness.—*Ohio Farmer*.

What are Filled Cheese?

Well, this is the way a New York commission house dish them up in their weekly circular, and the serving is about right: Filled cheese are an imitation cheese made from skim milk, whereto, at the curd-forming period, certain oleaginous matter is added and mechanically taken

up in the cell of the curd. In their make-up there is no chemical affinity whatever, no change of constituent elements. The skim milk curd simply holds the added fat matter, whatever it may be, mechanically. The curd is the capsule, the fat is its contents. If heat dissolve, or incision disrupt the covering, then the fat exudes. Take a sample of filled cheese and rub it in your hand and you rub out all the fat and separate the curd and its contents. Your hands will then be covered with grease, and the curd which held it will then be separate and distinct. A pile of boxes of them on a hot summer's day will drop grease and make a pool of refuse upon the store floor about them as they stand. Practically the neutral oil and the curd might just as well be served at the table in separate dishes, as to have the oil conveyed to the consumer in the capsule of the cheese curd.

That such a clumsy provision of grease should be supposed to impose on the "Human" is a sorry comment upon the ability of the race to take care of itself. A public that cannot protect itself against such folly is not as competent in the selection and use of food as an intelligent horse, which, if cheese were his diet, could never be fooled by such compounds as these imitations.—*Western Rural*.

A Bulletin Board.

North Andover Grange, Massachusetts, has secured a bulletin board to be used by any member who has anything to buy, sell, or exchange. It adorns the wall at each meeting and fills a long-felt want. It often happened that some member had a new milch cow or something else to sell, at a time some other member needed the cow or article. Unless these two members met by chance and mentioned their wants, the first might wait several days to find a purchaser, and the other spend a day's time in search of what he wanted. With the announcements on its boards, the two can perhaps make a trade. As a means to improve "the home market" the bulletin board should be upon the walls of every Grange; and it emphasizes the fact that it is better and cheaper to advertise for what you want than it is to waste time and strength driving around in house to house search.—*Grange Bulletin*.

Michigan State Association of Farmers' Clubs.

The committee appointed at the annual meeting of the above named association, to prepare and submit a series of questions to be discussed by the various Farmers' Clubs of the state, not having the entire list of questions fully prepared, have thought best to submit two questions, which the committee believe to be suitable and opportune, and promise that the remainder of the series of questions shall be submitted in due season.

Question 1. Are present legislative methods satisfactory to the people, and if not, what are the defects, and what the remedies?

Question 2. What products of the farm—with the present outlook—should be given first place?

Committee. { WILLIAM BALL.
J. T. DANIELLS.
G. L. HOYT.

Try This.

Farmers Should Fix Things and let the Other Fellows Grumble.

We advocate no new political party, but we wish to earnestly impress the necessity of being represented in our state legislature and in congress by men who know the needs of the farmer, and who will advocate only those measures which will entitle him to an equal share of what the harvest yields. Farmers are apt to leave these matters until they are fixed in the interest of some politician or corporation, and then fight it out in grumbling. Farmers, why wouldn't it be a good idea to fix these things ourselves, and let the other fellows do the grumbling?—*N. J. Batchelder, Master N. H. State Grange*.

NOTICE the date printed after your name. It tells you when your subscription expires.

Field and Stock.

Merinos.

What Shall We Do With Them?

WM. E. ANSTERBURG.

What will the next ten years do for the Merinos, not as a breeding flock, but as a paying stock on the farm? I suppose that if this question was asked today, three-fourths of the farmers of this state and of the United States would answer that they were some of the seven lean kine. A majority of the farmers believe that all sheep are profitless, no matter what breed. Therefore they are all falling over each other to get rid of them; like a flock of sheep, when one makes a start they all follow, whether he leads into clover or into a bare fallow.

NOT OUR FIRST EXPERIENCE.

This is not the first time that sheep have been low and nearly everyone trying to get rid of them. No longer ago than about the beginning of the seventies they were as low as they are today, yet nothing on the farm paid better than sheep from 1870 to 1880. Now the first question is, Will any sheep pay during the next ten years as well as any other stock that can be kept on the farm? I believe that a flock of sheep is a benefit to any farm, living on many things that without them would go to waste, returning more to the soil than any other stock, requiring less fencing, easier cared for during the whole year. There are many that believe that while the mutton breeds will be a paying stock, the Merino and his grades will no more pay the farmers of the older states. And we find many men who, like John Randolph of Virginia, would go ten miles to kick a Merino, more on account of politics than anything else.

MERINOS WILL PAY AS WELL AS WILL OTHER BREEDS.

Now I believe that take a good flock of Merinos and give them good care for the next ten years, they will pay as well as any other stock for that length of time. While some of the down breeds may pay better for a year or two longer, the Merino will hustle them in a term of years, requiring less feed and care. While the wool may be low at present, better times and changes in fashion will bring fine wool to a premium over coarse. One cross of a down ram on a fine Merino flock will so damage the fleece that twenty years of breeding cannot repair it.

MERINO WOOL WILL BE UP SOON.

For some purposes our fine Merino fleeces of Michigan are better than any others in use, for example, our Melton overcoats. The destruction of our fine wool fleeces that has been going on for the last few years, both by slaughter and crossing, cannot fail to make an improvement in the price of fine wool. The United States is not alone in lessening the supply of fine wool; the success of the New Zealand flock master in mutton has led many Australian shepherds to cross with the coarser breeds. Also the flocks of Australia, South America, and the United States are decreasing, while the consumption of wool is increasing. Therefore I believe that a good flock of Merinos for a term of years will pay as well as any stock that can be kept on a farm during the next ten years.

Homer.

Poultry Raising.

M. L. EVENS.

The average farmer does not believe that poultry raising pays, and unless this idea can be educated out of him he will never make it pay. It is human nature to do as little as possible unless we see dollars in it. Few farmers have good houses for their fowls, and nine out of every ten have ten to one hundred more fowls than their houses will profitably accommodate.

THE HOUSE.

A house, 12x24 feet, with 6 foot studding, a double roof well shingled, and sides double boarded with building paper between, with a partition through the centre and one half used for a roosting room and the other for a scratching room to exercise in, would accommodate thirty fowls, and thirty are enough for such a house, and that number can be made to pay more clean money than a larger number kept in the same room. Besides, thirty fowls are all that should ever be housed together for the best results.

NEGLECT.

I know a farmer who is successful with all other kinds of stock, yet his hens do not pay him the cost of their food. This is simply because he neglects to tend to the wants of his fowls and the little details necessary to make a success of poultry raising. All thrifty farmers clean their horse and cow stables daily, yet some of these same farmers clean their hen houses only once a year, and never use muck, road dust, or plaster to absorb the ammonia. Confine a horse or cow or a man

in the same conditions and what would be the result? It would surely be disease and death; and yet they say hens don't pay, when they themselves are entirely to blame. Lice breed in the droppings, and for this reason, if for no other, the house should be cleaned at least twice a week. This need not take more than five minutes each time.

THE ROOSTS.

There should be a tight platform ten inches or a foot below the roosts which are all on a level, and the platform high enough from the floor to slide a box along under the edge, or use the wheelbarrow if you like, and scrape the droppings into it with an 18 inch scraper made from an old crosscut saw blade made like a stable scraper. Sprinkle the platform each time with dry muck road dust, or land plaster, which should be kept in a box convenient for the hens to dust themselves in. If this is done, there will be no trouble with the droppings sticking to the platform, and will absorb the ammonia and thus keep the air purer. These droppings are worth more to the farmer than \$30 phosphate. I have no ventilator in my coop, and if fowls are not crowded none is needed, as fresh air will be supplied every time the door is opened.

FOOD.

As to food, use nothing but clean, wholesome food, no screenings, but good wheat, buckwheat, oats, and corn. Feed in the morning a warm mash composed of wheat or oats, corn, and middlings, ground together and salted, as for ourselves. Feed all they will eat up clean and quickly. At noon feed a little grain in the chaff, cut straw, leaves, or buckwheat hulls kept on the floor in the part used for exercise. This is to make them work, which is necessary to obtain plenty of eggs in winter. At night give a liberal feed of 50 cent wheat or buckwheat and alternate every other night. Corn can be used for this once or twice a week, but not all of the time, as it is too fattening. Care should be taken not to get the fowls too fat, as they are liable to become egg bound, or have enlargement of the liver, and a very fat hen will never lay as well as one in fair condition. Different breeds may require different treatment. I have never kept anything but black Langshans.

PROFITS.

I have made as high as \$2.17 net profit above the cost of feed for each hen kept during the year. This was made with the average price of eggs at 17 cents per dozen and live poultry at 8 cents per pound. My account for this year is as follows:

Average No. of hens kept during the year		30
Dr.		
30 hens @ 50c each.....	\$ 15 00	
Feed consumed during the year.....	51 70	
300 eggs used for hatching.....	3 00	
	Total	\$69 70
Cr.		
134 chickens sold alive.....	\$ 42 39	
12 consumed in the family @ 40c each.....	4 80	
68 pullets on hand worth 50c each.....	34 00	
264½ doz eggs @ 13c per doz., the average price for year.....	34 38	
	Total	115 57
	Expense	69 70
	Profit	45 87
Average profit per hen, 45.87÷30=		1 53

No account of the roosters kept during the year or on hand now has been made. There is no reason why the average farmer cannot do just as well or better, if he only will.

South Butler.

How to Make an Economical Start in Small Fruit Growing.

THOS. A. DURKIN.

First buy the varieties you think you want, getting enough only for stock plants, and then propagate the rest yourself. If you start in on currants thinking to have 1,000, buy 100 stock plants two years old. Pick out a rich spot of land and plant the currants two feet apart in a row, mulch them well with rich manure, keep them well worked, and in early fall cut off the surplus wood, cutting the bushes back to two and one half inches above the ground, then top dress with manure and they will be ready to give you more wood the next year. Take the wood obtained the first year and cut it in cuttings nine inches long, tie them in bunches and trench them in, which means putting them in a trench, butt end up, and throwing dirt on them to the depth of two or three inches. In ten days the cuttings will be calloused and ready to plant out. Plant the currants in rows three feet apart so that they may be cultivated with a horse, thus saving hand work. In planting take a garden line and spade and open a trench six inches deep. Put the cuttings two and a half inches apart in the trench, put in the dirt and tramp well, then hoe the dirt back to the level of the cuttings, top dress the rows with short horse manure. Currants should not be planted later than October the first, to have a good stand of plants the next

year. When the plants are one year old they should be dug up and planted in bearing rows four feet by three feet apart.

GOOSEBERRIES.

Now for gooseberries. If you are going to plant 1000 plants, buy 100 big, strong plants two years old. Plant the stock gooseberries beside the currants so as not to have them cover too much ground with stock plants. The gooseberries should be at least seven feet away from the currants, having them three feet apart in the rows. About the first of June run a shovel plow on both sides of the rows, take a shovel and throw the soil on the crowns of the plants, leaving the tips out two or three inches, and pat the dirt firmly around the plants and in the crown. In October you can pull the dirt down with a fork. Take a pair of pruning shears and cut the plants back to where they crotch, leaving the old plant to produce wood for the next year. Give the old plants a good coat of short manure, plant the cuttings in the fall the same as you would the currants, but not quite so close in the trenches. With one year's growth they will be ready to set out in fruit rows four feet by three feet apart.

RASPBERRIES.

If you want 1000 raspberry plants, buy 100, and plant them the regular distance apart the first year. The raspberries are too small to give any tip plants the first year, but the second year they will be in good shape to give good plants. The last of June or the first of July go over the plants and nip the green tips back to make the canes harden for tip plants. Start to layer the plants the last of August or the first of September, just after a rain. Take a small trowel and make a hole in the ground two inches deep and three inches long, bury the tip of each cane, and press the dirt down firmly. Each bush will produce from ten to fifteen plants the next spring. Let the tips remain in the ground until spring, when they can be dug with a grape fork; set them out in rows from three to four feet apart and the rows five to seven feet apart. This method is a little slow, but it gives a man experience and he becomes more acquainted with his line of business. Not only that, but when he has propagated enough for himself he can also propagate for others and sell at a living profit. He still has his stock plants for further use.

Agricultural College.

Holsteins.

The following paper, containing some very interesting statistics, was read by J. Ashworth of Lansing at the meeting of the Holstein breeders last winter:

The ancient and valuable breed of ring-streaked and spotted black and white cattle did not appear in the lengthy test at the Chicago exposition. Men were sent to look for extra specimens of this breed, but the owners of some of these choice cattle would not consent to endanger their lives in the long strain of super extra high feeding, under the care of others than the owners for ninety days. The best of all the Jerseys, Brown Bess, died of over-feeding during the test, and the owners of many others judged best to send them to the slaughter house when the test was over. It is generally admitted that the Holsteins are the largest milkers of any of the various dairy breeds.

SOME RECORDS.

At our Agricultural College the Holsteins stand at the head of the various breeds for both milk and butter. Rosa Bonheur has the very high record of 106 pounds of milk, producing 3½ pounds of butter in one day; in 190 days, 13,693 pounds of milk, containing 436½ pounds of butter. Hourtje in 238 days gave 14,269 pounds of milk, containing 463½ pounds of butter fat, and Bell Sarcastic in 239 days gave 14,621 pounds of milk, containing 429 pounds of butter fat, being determined by duplicate tests of each milking by the Badcock test. If any three cows of any breed in Michigan can produce a better record than this for milk and butter let the record be produced. Then Holsteins will have to take second place.

AT THE FAIRS.

At the state fair in Detroit last fall, on the butter test a Holstein cow, owned by A. E. Riley, gave the most milk, produced the most butter, and took the premium. The Jersey stood second as a butter producer. At the New York state fair, in a butter test of four days, open to all breeds, D. F. Wilber of Orienta, owner of Pauline Paul, that stands queen of the dairy, with a butter record of 4 pounds and 9 ounces in one day easily captured the prize for the Holsteins over all other breeds. In bulletin No. 15, a digest of experiment station work by the United States department of agriculture it is said: "The New York state station has in progress the most extensive test of breeds of dairy cows undertaken by any station. The test was commenced in April 1889, and includes six breeds, Holstein, Ayrshire, Jersey, Guernsey, Holderness, and Devon. * * * The Holsteins gave the largest

amount of milk, but the Guernseys, closely followed by the Jerseys, gave the largest average yield of butter per day. If the milk of the Holsteins did not lose so much fat in creaming, by deep setting, the Holsteins would easily make the most butter. * * * An estimate is made as to the amount of cheese which the milk of each breed might be expected to yield; this calculation is based upon experience at the station in making cheese from different kinds. From this estimate it appears that for cheese production the Holsteins stand first, with the Guernseys closely following."

At the Indiana state fair in a butter test this year open to all breeds nine entries were made—Jerseys, Holsteins, Guernseys, and Ayrshires; A. J. Stanton's Holstein cow took first premium and a Jersey stood second. In the dairy test at the Toronto fair in Canada a premium of \$100 was offered to the cow producing the most solids in two days; Eunice Clay, an 8-year-old Holstein, owned by A. G. Rice, captured this prize, open to all breeds.

We have here adduced facts taken from tests made under watchful scrutiny showing that Holsteins generally stand at the head for butter as well as for milk.

Spurry.

This plant was recommended two years ago in Bulletin 91 of this station as a useful fertilizer for barren, sandy soils, good results having been obtained from its use on such soils at one of the sub stations in the northern part of the state. In some parts of Europe it has been grown in a small way for several hundred years as a fertilizer and forage plant, and has played an important part in reclaiming the sandy lands of Belgium and Holland.

Spurry is a small, feeble plant growing about one foot in height, with a weak, slender stem and small, needle shaped leaves. Sown in the spring in this latitude it will ripen its seed by the first of July, and if the soil is moist, will mature a second crop the same year. There have been several varieties of spurry in cultivation from time to time, differing in size and other characters. The one now known as giant spurry produces a larger growth than the ordinary kind, but requires a better soil. Spurry has been introduced into the United States at various times during the present century, but has never found favor here as a field crop. During the past two years it has been offered more widely than ever by seedsmen, but so far as we have learned all who have tried it have been disappointed. This station has never recommended it, except for the limited and specific purpose mentioned above, namely, as a fertilizer on land too poor to grow any other crop. In such cases anything is welcomed which will add a little vegetable material to the soil. Few soils are so poor, however, but that turnips, rye, or some other crop of more value than spurry can be used to start with. There is certainly no need of spurry where clover, or the ordinary grasses can be made to grow. —A. A. Crozier, Michigan Experiment Station.

Agricultural College Education.

I happened to live when a boy near where the New York state agricultural college was built in 1859. My father and other farmers took stock to help build it, but never had the slightest idea of sending their children there, and they were wise in not doing so. Such splendid opportunities open to all other professions and callings entirely eclipsed farming. And it has been so ever since, until now the county loses a thousand of its people every decade and farm land has depreciated one half in 30 years. My father warned me if I wanted to be a farmer to beware of a so called education, as he said it always as a rule makes one discontented and restless as a farmer. The universal experience of nearly every one proves it.

I should like to send my son to an agricultural school where the central idea would be, nothing to be learned from books, no studies to pursue, and no recitations. Mechanical trades to be learned to a limited extent, practical work everywhere on the farm, military drill, and object lessons only given in chemistry, botany, etc. Now, farmers, would not this be a grand reform? But alas! human beings are slaves to the accumulated rubbish of centuries of useless learning. Yet there is hope ahead. There has been a growing discontent of existing educational methods, and the agricultural college is a result of a glimmering aspiration for a more practical education. H. VOORHEES. Traverse City.

NOTICE the date printed after your name. It tells you when your subscription expires.

The bicyclists have proven themselves a boon to the farmers, as it is chiefly owing to their ceaseless and strenuous efforts that so much has been done toward arousing the road commissioners to a realizing sense of the bad condition of most of our country roads, and urging them into action toward their immediate improvement.—Agricultural Epitomis.

WOMAN'S WORK.

Laughter Life's Elixir.

A merry heart doeth good like a medicine.—Solomon.

O, laughing river of mirth,
We name thee of heavenly birth,
When the source of thy streams flows free
From the fountain of purity.

O, rippling river of mirth,
Thou crossest the deserts of earth;
Each wave bearing onward with glee
Some demon of care to the sea.

Flow on, ye bright, laughing waters,
Bringing joy to earth's sons and her
daughters;
And in the waste places of gloom,
Making roses and lilies to bloom.

O, cheerful daughter of mirth,
The balm of sad hearts and the hearth;
A solace for sighs and for tears,
A hope for despair and our fears.

O, rosy-cheeked angel of cheer,
Thy dimples can hold every tear;
Transmitting them all into pearls,
E'en sweetening the temper of churls.

O, joyful daughter of mirth,
We only can tell thy true worth,
When sorrow and fears us affright,
Thou givest us "songs in the night."

O, smiling daughter of laughter,
The sunshine of earth and hereafter;
How cheerless these dungeons below,
Unblessed by thy presence in woe!

Bright ban of earth's gloomiest cloud,
Our treasures when wrapped in a shroud,
There is balm in thy magical art,
For the sad and broken in heart.

O, heaven-sent angel of light,
Our guardian by day and by night;
And when from death's shadow we rise,
Thou'lt welcome us home in the skies.

I. COLLIER.

Battle Creek, March 1895.

Suppose You Don't Like Housework.

Suppose you don't like housework!
What difference does it make?
With three meals a day before you,
Bread, cake, and pies to bake?

With washing, ironing and mending,
And sweeping and scrubbing to do,
And if you chance to be farmers,
You must make the butter, too.

And many other duties
Belonging to house work;
Must all be done in season,
And so you must not skirk.

And then, quite unexpected,
Some cherished friend will come;
And you must have things tidy
In your pleasant little home.

Or you will have no spare time
To visit with your friend,
Because neglected duties
You then must needs attend.

So then be up and doing,
Nor leave one task undone:
E'en though you must keep busy
From rise till set of sun.

And so, you must keep doing
The tasks that daily rise,
Although they look like mountains
Before your weary eyes.

For thus we fight life's battles,
And thus each cross we bear;
And if we work for the Master,
A crown of life we'll wear.

MRS. A. C. LAWRENCE.

Fitchburg.

The Carpet Beetle.

Like many other American insect pests the common carpet beetle was originally of European origin. Although not an infester of carpets in the old world, yet when once placed in this country it rapidly grew to be the most destructive of household pests. Since the carpet beetle prefers a dark, secluded retreat, it is easy to see why Europeans who employ rugs that are removed and shaken every few days, would escape their attack altogether, while in America with our fastened carpets that are removed and cleaned but once a year, the beetle finds most congenial quarters.

Unlike many other imported insects the carpet beetle has not overrun our entire country in a few years. It was first brought to the attention of entomologists in 1876, and since that time has spread over most of the northeastern states, going as far west as Illinois. Aside from its inroads upon carpets, all kinds of woolen goods are subject to its attack as well as furs, while collections of plants and insects are much enjoyed.

LIFE HISTORY.

Where the beetles are not affected by artificial heat it is probable that there is but one generation each year. However, in inhabited dwellings they come forth as mature beetles during the winter and early spring.

The injury done by them is in the worm stage and it is in this condition that they are most familiar to housekeepers. At the time mature beetles are abroad they are generally found on the window sash, where they may be easily caught and destroyed.

Thus to briefly review its life history the mature beetles come from an inactive or pupa state in the spring—sometimes much earlier if in warm rooms. A little later the eggs are laid, usually on the carpets or some woolen goods. The eggs under favorable conditions soon hatch and the young larvae commence their summer's work of destruction. The larvae continue to grow, moulting, or casting their skins,

several times in course of the season. In the fall they seek some crack in the floor or snug corner, where they transform to a pupa, and in this condition they remain until warm fires or spring weather bring them forth mature beetles.

When a house once becomes infested vigorous measures are necessary for the complete extermination of this pest, as a few overlooked beetles will soon restock the establishment.

REMEDIES.

Many remedies are very effective if carefully performed, while plenty of light and pure air are invaluable as preventative measures.

Carpets affected only in spots may be cleaned by placing damp cloths over the infested parts, to be ironed with a hot flat-iron. The steam will pass down through the carpet and kill the insects.

In badly infested houses all woolen goods and carpets should be removed and sponged with benzine while the edges of the mop boards and cracks in the floor should be flooded with the same material or kerosene oil. It must be remembered that benzine is very explosive, so it must not come in contact with fire or lighted lamps. Another certain remedy is to spray with corrosive sublimate dissolved in alcohol; the latter quickly evaporates, leaving the poison scattered through the infested carpet. This remedy necessitates every caution, as it is a violent poison that will remain on the infested goods for some time.

Furs and heavy winter wraps may be tied up in paper bags for the summer safely if not infested when laid away. A box or trunk will answer the same purpose if they be tight. It is safer, however, to put in each package a few grains of camphor gum, which will also act as a preventative in case the receptacle is not insect proof.—*Charles B. Cook in Detroit Tribune.*

Shall We Educate Our Children?

On this question I must take the affirmative most emphatically. Yes, we should educate our children. It is clearly our duty to give them the very best education in our power, to discipline and develop their manhood and womanhood, because it will lift them up to a higher life and give them greater power of achievement, greater usefulness, and greater happiness, and possibly the capacity for greater sorrow and suffering. Necessarily so, yet this also is for their highest good, for every trial, every sorrow, should strengthen and purify their characters; every obstacle should only spur them on to greater effort toward the perfection of their God-given being, gradually realizing in themselves the eternal, divine perfection. In order to treat this question intelligently it is essential to understand what we mean by the term or word education. I mean the acquisition of the knowledge that will fit them for the efficient performance of their work or duties in life.

MY THEORY.

My own idea of a good education is not simply a course of study in our common schools, an academic or a collegiate course. I should not think it wise to put all indiscriminately through the collegiate or even the academic course of studies without regard to ability or circumstances. A thorough, practical, English course I consider indispensable. And here I must bring in a pet theory of my own, namely, that every one has a peculiar talent or aptitude for some particular work or calling. There is some particular thing they can do and like to do better than anything else, and we should make it our especial business to find out what that thing is, and whatever it is; they should be educated for that business, and bend every energy to fitting themselves for that work or profession. Choose only such studies as will be needed or be a help in their chosen work. Few farmers can afford to let their children skim over a lot of studies that will never be of any practical use to them. And it is certainly folly to spend time and money on a classical course if they have no ability or taste for such a course. I think you will all agree with me that the most pitiable failures arise from mistakes in the selection of an occupation.

STUDYING FOR A VOCATION.

Giving religion the first place, their chosen life work should have the second place in their deepest and most cherished affections. If their selected avocation commands their sincere love, and if their natural abilities fit them for it, there will be little doubt of their success. While, on the other hand, if they are forced by parents or circumstances into some work they have no natural ability for, and they perhaps dislike, failure is almost certain, or at best only partial or indifferent success, for out of the heart are the issues of life. In it are the mainsprings of action and the source of ambition, and it commands obedience from the will that results in achievements. Instances in history are plentiful to prove and illustrate this. Caesar and Napoleon loved war and its glory as they loved life, and the fame of their general-

ship will be as enduring as time itself. Phidias loved the beautiful with a passion that was akin to an all-consuming fire, and was it strange that when his chisel touched the marble it glowed with the life and beauty that was within him, and revealed his ideal? Shakespeare must have loved the study of human passions and human actions, and he must have applied himself zealously and exclusively to that study. How else could he have succeeded in his unparalleled portrayal of them? Illustrations without number might be presented as proof of this theory, but these are sufficient. Successes and failures all around us prove it. While energy, industry, and perseverance are necessary to success under any conditions, yet where they select the life and work they love their devotion to that work will be entire and energetic, and industry and perseverance will win success, and their individuality is developed, and strength lies in a full and free individualization. It leads the mind into independent action, so that they are not mere echoes.

OUR PRESENT SYSTEM.

There are serious drawbacks in the American education of today. It is in a degree in a chaotic condition, resulting from our not having any definite notion of what we are aiming at; too much erudition and professional training without aim or regard to special work. If one has means and time there are many things that it is good or pleasant to know, and I am in favor of everyone having all the education they want or can get; but for people of limited means who have their own way to make in the world, I would advise them to put all their time and means into what will do them the most good, give them the best help for their chosen avocation, whether farming, teaching, professions, mercantile, mechanism, or trades of any description. And when we have done this for our children we have given them a good foundation on which to build, for as matter of fact, education is only just begun; for we may and must study and learn while life lasts.

MRS. MARY E. HOLMAN.

Rochester.

A Woman's Ideas.

I think that the farmer's wife will compare for neatness very favorably with those who have less work. We have been told that the kitchen floor should be spotless white, and not a speck of dirt anywhere. The men sometimes tell us this. This is all very nice, but if the men would buy gasoline stoves, paint the floors, sinks, and tables, and put screens in the windows and doors, possibly we could do better in this respect. When men find that everything is not in order at dinner time, they should think over the numerous duties that a woman, especially if she has a family of small children, has had to perform during the forenoon.

We are also told that meals should be of first importance, and that many divorces would be left off of the records if women would study to present well-cooked dishes. I believe that meals are of vast importance, and that a true wife and mother will see that they are properly prepared and on time. But if it occasionally happens that they are not, it is no reason why a man should grumble or make for a divorce court.

Not long ago I read a criticism of the inclination of some women who belonged to societies and clubs, instead of being willing to keep at the house work. But I say that a woman, as well as a man, has a perfect right to fit herself for such station in life as she may wish. I don't care if girls do not learn to knit and some of the other old-fashioned things. I think that there are things they can do that are of more value. How would it be with our churches and the Grange, if it were not for woman's work? Just because our mothers and grandmothers spun, wove, attended to the dairy, and never talked about their social, intellectual, and political needs, is no reason why we should do so today. We are living in a different age from them. Our children have greater opportunities. We have to be educated in order to keep up with them, and it is no discredit to our girls because they are interested in things in which their great-grandmothers took no interest. I want to see the time come when our daughters can in every respect stand side by side with their brothers and husbands.

MRS. A. C. HEADLY.

Decatur.

Learning Grammar.

From Shuman's "Steps Into Journalism."

And grammar—is that worth all the fuss that the school teachers make over it?

Why, all that punctuation is for is to make clear to the eye the grammar of the printed sentences. How can you make clear by marks a thing that you do not understand? You must be able to see all the hidden relations of your words to each other, just as the skilled mechanic can see the working of all the hidden parts of an engine. If you aspire to fit together the wheels and shafts and pinions of discourse,

you must not be too lazy to learn the rudiments of the profession, or you will not be likely to turn out anything that will "go." Certainly learn grammar. Learn everything you can about the tools with which you intend to work.

A Preventative.

More freshets, more property carried away, more lives sacrificed, is the record of the "January thaw" of 1895. How much of this damage would have been prevented had a more liberal distribution of forests over the head waters of streams held back the snows can only be told after a critical and detailed investigation, but we are confident that the denudation of our forest is to be credited with much of the destruction. We do not claim that forests will prevent freshets, but that they restrict their intensity and decrease their number.—*Forest Leaves.*

The Juveniles.

Little Mice.

Down upon the gate stone, baby,
On his little elbow bare,
Long has rested; mother wonders
What he can be doing there.

Still he stirs not, though he sleeps not,
But when mother calls him thrice,
Lifts his curly head and answers,
"I do see these little mice."

Little mice, the darling called them,
Little ants, they really were;
Long he watched their busy motions,
Pleased so well he would not stir.

—*Churchman.*

The Cat's Explanation.

You ask the reason, little friends,
Why cats don't wash their faces
Before they eat, as children do
In all good Christian places.

Well, years ago a famous cat
The pangs of hunger feeling,
Had chanced to catch a fine young mouse,
Who said as he ceased squealing,

"All gentle folk their faces wash,
Before they think of eating!"
And wishing to be thought well-bred,
Puss heeded his entreating.

But when she raised her paw to wash,
Chance for escape affording,
The sly young mouse then said good-bye,
Without respect to wording.

A feline council met that day,
And passed in solemn meeting,
A law forbidding any cat
To wash till after eating.

Ex.

If You Please.

When the Duke of Wellington was sick, the last thing he took was a little tea. On his servants holding it to him in a saucer, and asking him if he would have it, the Duke replied, "yes, if you please." These were his last words. He who commanded the great armies of Europe and even conquered the great Napoleon did not overlook the small courtesies of life. Boys, don't forget three little words—"if you please."—*Ex.*

Pug and the Drake.

Among some young ducks that were hatched by a hen was a drake, which the mother hen neglected, and which was taken into the house and brought up by hand as we say.

It was at first placed in a very small round basket with a lid, fed on bread and milk, and very tenderly cared for; but growing too large for this basket, it had a larger one given to it, and this again proving too small, it took to entering by day a favorite pug-dog's basket. Pug grumbled at first, gently pushing Master Drake away with his fore paw, but he soon accommodated himself to the intruder's presence. This arrangement went on until the drake was so large that they could not both occupy the basket together. If the dog was in the basket first, the drake would stand and quack over him, and then lie down close to the basket outside. Master Drake would also follow the dog about for society, and was evidently much attached to him.—*Ex.*

Puzzles.

Puzzles and solutions are desired from all. Address Thomas A. Millar, 500, 12th street, Detroit, Mich.

46—SQUARE.

1. A walk; 2. A piece of ground; 3. even; 4. to obey.
Carleton. *EDITH.*

47—CHARADE.

A total is a dangerous thing
For a boy to have in his hand;
A first is a thing to ride upon
In last or valley land.

Elkin, N. C.

KENT GLASBY.

48—REBUS.

N. E. T.

L
S

Pontiac.

PRIZE TOURNAMENT.

To the person who solves the most puzzles in GRANGE VISITOR (5 numbers) commencing March 21 and ending with the issue of the GRANGE VISITOR dated May 18, 1895, we will give "A Rogue's Life," and the winner of the next best list will receive a paper novel. Solutions can be sent all at once, or you can send solutions as fast as the paper appears. OPEN TO ALL. Solutions to the tournament must reach us by June 3.

THE MAIL BAG.

We have changed the "tournament" as announced in March 21, but extended the time for solvers. You have plenty of time to solve back numbers.

THE GRANGE VISITOR

CHARLOTTE, MICH.

The Official Organ of the Michigan State Grange.

Published on the First and Third Thursdays of Each Month

EDITOR:

KENYON L. BUTTERFIELD, LANSING, MICH.

To whom all exchanges and all articles for publication should be sent.

MANAGERS AND PRINTERS:

PERRY & McGRATH, CHARLOTTE, MICH.

To whom all subscriptions and advertising should be sent.

TERMS 50 Cents a Year, 25 Cents for Six Months. In Clubs of 20 more 40 Cents per Year each.

Subscriptions payable in advance, and discontinued at expiration, unless renewed.

Remittances should be by Registered Letter, Money Order or Draft. Do not send stamps.

To insure insertion all notices should be mailed no later than the Saturday preceding issue.

Entered at the Postoffice at Charlotte, Mich., as Second Class matter.

NEXT ISSUE MAY 2.

OUR WORK.

The following has been approved by the State Grange as a fair statement of the objects the Grange of Michigan has in view, and the special lines along which it proposes to work. We hope every Grange in the state will work earnestly in all these departments, so that by a more united effort we shall rapidly increase our numbers, extend our influence, and attain more and more completely those ends which we seek.

OUR OBJECT

is the Organization of the Farmers for their own Improvement, Financially, Socially, Mentally, Morally.

We believe that this improvement can in large measure be brought about:

1. (a.) By wider individual study and general discussion of the business side of farming and home keeping.

(b.) By co-operation for financial advantage.

2. (a.) By frequent social gatherings, and the mingling together of farmers with farmers, and of farmers with people of other occupations.

(b.) By striving for a purer manhood, a nobler womanhood, and a universal brotherhood.

3. (a.) By studying and promoting the improvement of our district schools.

(b.) By patronizing and aiding the Agricultural Colleges and Experiment Stations in their legitimate work of scientific investigation, practical experiment, and education for rural pursuits.

(c.) By maintaining and attending farmers' institutes; reading in the Reading Circle; establishing and using circulating libraries; buying more and better magazines and papers for the home.

4. (a.) By diffusing a knowledge of our civil institutions, and teaching the high duties of citizenship.

(b.) By demanding the enforcement of existing statutes, and by discussing, advocating, and trying to secure such other state and national laws as shall tend to the general justice, progress and morality.

Are you a business man?

Plant a tree on Arbor Day, May 3.

We have at hand the proceedings of the Colorado State Grange.

Bro. Jason Woodman has reorganized the Grange at Kalamo, Eaton county.

With this issue we begin our fourth year with the GRANGE VISITOR. We hope that each year has made the paper of more use and value to the farmers of Michigan.

The report of the state board of agriculture for 1894 is now out and can be obtained by application to the secretary, Agricultural College. Every farmer should send for one.

If you intend to spray your fruit trees this spring, and want to know how and when to do it, send a card at once to Secretary, Agricultural College, for special spraying bulletin.

The report of the state horticultural society for 1893 has just been issued. Granges who wish a box of the reports for distribution among the members can obtain it by applying to Mr. Robert L. Hewitt, Lansing, Mich., and by paying freight.

Does your legislator know that you want him to vote for farmers' institutes, and pure food, and a tax statistician? If he doesn't know it, and doesn't do it, don't you ever say anything against him because he failed to do it. It will be as much your fault as his.

WITHOUT DELAY.

Patrons, we are sorry to say that the legislation asked for by the Grange is in some danger of not passing. If you have the interests of the Grange at heart, sit down without further delay and write your legislator to vote for the farmers' institutes, pure food, and a tax statistician. You cannot act too promptly, or talk to him too vigorously. There is not a moment to lose.

SALARIES OF STATE OFFICERS.

We regret that the salaries amendment met such an overwhelming defeat. We believe the people's judgment is wrong, and that it was a false economy that dictated the result. The legislature was partly to blame for it. Had they submitted the salary of the attorney general separately at \$2,500 at the spring election, and the salaries of the remaining officers at a

later election, we would have prophesied the adoption of both amendments. It is unfortunate that this matter cannot be properly adjusted.

A DOZEN NEW GRANGES.

Twelve new Granges have been organized or revived in Michigan since the beginning of this Grange year. Patrons, do you appreciate the significance of this fact? How long since such a report as this has been made? Have you of the "Old Guard" not looked with sad eyes at the monotonous reports of recent years, telling the old story of "just holding our own"? Have you not listened with acute ears, if perchance you might catch the enthusiastic shouts of the Michigan Division of Patrons, on a forward march? And do you realize that at last the column is moving? Can you believe that your years of toil and watching are at last to be rewarded?

Unless the signs fail grievously, all these things are true. We are again on the upgrade. We have at least made a good start. The wheels are in motion. Shall we make it twenty-five by next State Grange?

LIQUOR LEGISLATION.

In the House the liquor men, who gathered under the banner of the Aplin bill, heretofore described in these columns, were repulsed completely. Not a single point for which they contended did they win. Not only that, but they were actually routed by a sortie in the shape of a \$500 uniform tax, in lieu of a proposed \$400 uniform tax. What the course of the fight will be in the Senate we do not know. But we congratulate the House on its stand, and on possessing men of such conscience and power as Messrs. Redfern, Waite, Campbell, and Rose, who led the fight against the whiskey interests.

Speaking of liquor legislation, we should like to commend the bill mentioned in another column—Beneath the Dome—which provides for a State Liquor Commission. We believe that such a measure would do much to unite the temperance people of this state, besides furnishing facts of intense interest and importance. To indicate the meagre statistics available on this most important theme: We went to the state library and asked for all available statistics on any phase of the liquor question. All we found were one or two books containing a few estimates from the government internal revenue reports, that is all.

The legislature could do no more worthy thing for temperance than to pass the Redfern liquor commission bill.

THE UNIVERSITY OF MICHIGAN.

1. We believe in the University.

2. We believe that the state of Michigan should support it liberally.

3. We believe the state cannot support it with appropriations comparable to the sums expended by Yale, Harvard, Cornell, Columbia, and Chicago.

4. We believe that the state is now expending about all it can afford for the support of the University.

5. We believe that private donations and bequests should be encouraged; but we do not believe that the state should agree to pay interest on cash donations.

6. We believe that foreign students should pay at least \$100 tuition in every department.

7. We believe that the expenses in the general literary and scientific courses should be reduced to a minimum: that students in all the professional schools should pay a fair share of the cost of the training therein given.

8. We believe that more publicity should exist in the relations of the University to the people. Also that the management of the University should remember that they are not greater than the state of Michigan.

9. We would suggest that size is not a complement of efficiency in an educational institution.

SPECIAL TO SECRETARIES.

We send a marked copy of this editorial to every secretary of a subordinate Grange in the state. We have some requests to make of you.

We wish to have more news from the Granges of Michigan. We shall have to rely upon you largely to accomplish this for us. Will you do your part? Our requests are:

I. Will you, or a reporter elected by the Grange, write to the VISITOR *once a month if possible?*

II. Write about what you can get on a large postal card written fine, or on *one side* of a sheet of paper note size.

III. Mention something regarding any or all of the following facts. Write as soon as the event happens, so that the news will be fresh:

1. A new Grange in your county.

2. Initiation of candidates, one or more.

3. When a topic of general interest is well discussed, state the topic and in a sentence the prevailing opinion. *This is very important.* If this is all you have to say, *tell us about it.*

4. A contest, with results—briefly.

5. The death of a member. But please do not send *resolutions, sketches, or poems*, unless the member has been very prominent in county or State Grange work, and then brief sketches are desirable.

6. A special meeting, as Flora's day, a feast, Memorial Day, etc., visit of State Grange officer or deputy.

7. Visit of a neighboring Grange; or a special social, giving purpose and results.

8. Any new movement or new plans you are trying.

IV. Please don't write long letters.

V. Write at once on receipt of this paper, just to "see how it goes." We want to have two columns of breezy, fresh Grange news in every issue of the paper. Will you help us do it?

VI. Cut this out and paste it where you will see it often.

THE WISHES OF THE FARMERS.

In these days the moment we approach a legislator with the suggestion of an appropriation for any purpose, he at once exclaims, "We must be very economical this session; the hard times demand that we shall be very economical." That is a proper spirit. This man has a well developed sense of public opinion. Especially if he happens to represent a farming constituency, will he make no mistake in talking and voting for economy. For the farmers, always in favor of an economical administration of public affairs, at present feel more keenly upon this subject than is usual even with them. But economy is not parsimony—a saying trite but true. And the more intelligent of the farmers, organically represented by the Michigan State Grange, believe that it is wise to spend a little money for certain purposes, and even to increase the sums heretofore granted for such purposes. What are the wishes of the farmers in this respect?

1. A farmers' institute in every agricultural county in the state. This will cost \$5,000 per year. In these close times, when farmers are at their wits' ends in getting even a living, these educational institutes are of full more value than they are in times of general prosperity.

2. Power and money for the dairy and food commissioner, that he may be enabled to carry out the laws in force relative to pure food products. The laws are useless as they stand. It will take perhaps \$15,000 a year to wage this war against dishonest goods.

3. All farmers believe that they bear an unjust share of taxation. But they cannot absolutely prove it. Tax laws are mostly guesswork. No one, not even our "authorities" on taxation, knows much about the actual state of affairs as regards taxation. Therefore we ask for a tax statistician, who shall discover these desirable, but uncollected, facts. This may cost \$2,000 a year.

Here are perhaps \$22,000 a year that the State Grange, representing a vast body of the best farmers of this state, asks to have appropriated, not for selfish purposes entirely, but for the good of the people. Not only are they willing that these appropriations should be made, but they are demanding through hundreds of petitions that these appropriations shall be made.

It is possible, Mr. Legislator, that you may carry the argument of economy too far. Say that these wishes of the farmers are represented by \$25,000 per year. Suppose that for 1895 you omit the state military encampment, costing \$50,000; would our state be the worse off? That would pay for these farmers' wishes until you meet again. By restoring the salaries of

justices of the Supreme Court to \$5,000, where many of your colleagues think these salaries should be, and curtailing the expenses of the fish commission, you could save enough to satisfy these demands of the farmers. Or suppose you reduce the salaries of all state employees in Lansing 10 per cent for the next two years. You would save enough to pay for the farmers' wants, besides earning a garland of praise from a long suffering people.

These are merely hints, worthy sir. You see it won't do to cry Economy! when we farmers want something, and then vote, vote, away money for that which is not bread. Exercise your ingenuity and your pruning knife, and you will have no difficulty in saving enough from several sources to more than balance what we greedy (?) farmers want.

Beneath the Dome.

In this column we design to mention and discuss those measures introduced into the legislature that we believe will be of most importance and interest to our readers. If any of our readers desire to have the provisions of any bill that we do not mention and will let us know their wishes we will endeavor to get the information.

We shall not here attempt to give the history of legislation for the past two weeks, as this column was designed to give information of special interest to our readers which could probably be secured by them from no other source. But inasmuch as we have already given the outlines of most bills of special interest, we shall here note a few of the acts of the legislature during the last fortnight.

Both houses have passed bills authorizing the use of ballot machines. We hope that these machines can be purchased at a sufficiently reasonable price so that every voting precinct in the state can have one. We believe voting machines to be the next great reform in our election system.

Rep. J. T. Campbell has succeeded in securing the passage of his bill for the parole of convicts in certain cases. "A parole is to be granted only on the recommendation of the board of control of the penal institution in which the convict may be confined. Persons sentenced for life or who may be engaged in serving their third sentence for a felony are exempt from the benevolent provisions of the bill. Convicts released on parole are to be considered as remaining in the legal custody of the governor, who may at his discretion order them returned to prison to serve out their unexpired terms. His written order for their return, when certified to by the secretary of state, shall be considered a sufficient warrant for any officer of the peace to apprehend, and return any paroled convict to confinement."

Mr. Miller's bill to abolish the present board of health and create a new board failed of passage by a very narrow margin. But a committee was appointed to investigate the present administration of the health board. This is what should have been done in the first place. The members of the board are all honorable men, and the warfare against them has some marks of resentment about it.

The Redfern pure food bill has been favorably reported out of the committee on public health of the House. The Johnson bill, which increases the power of the dairy and food commissioner, has also been reported out of committee in the Senate, with a recommendation for an appropriation of \$12,000. The Redfern bill is made a special order for Wednesday, April 24, at 2 p. m.

Mr. Wildey's bill for the appointment of a tax statistician passed the House Tuesday with 53 votes in its favor. It was amended in committee to make the term of the statistician two years. This will be a long enough time to test the value of such an office.

The farmers' institute bill has not as yet been reported out from the House committee of ways and means, and we are given to understand that it is liable to have "hard sledding." Messrs. Rose, J. T. Campbell, Wagar, Wildey, Smith, Lee, and Donovan are on that committee. If one of these men represents your district, we would suggest that you write him at once, urging him to use his influence in favor of the bill.

Mr. Redfern has a bill that we think would, if enacted into law, help solve the liquor question. It provides for a State Liquor Commission of three members, who shall receive no pay but expenses, and serve for six years, during which time they shall complete their work. They shall appoint a secretary and determine his compensation.

Their duties are: 1. To collect all the statistics possible as to the sale of liquor in Michigan. There are at present but few accurate statistics of this nature. 2. To make a study of the liquor business as

effects crime, insanity, charity, etc., in this state. There has been very little written upon these topics that is accurate. 3. To examine thoroughly the various methods of regulation of the liquor business that have been or are in vogue in civilized countries. The bill carries with it an appropriation of \$5,000.

Master's Column.

A Grange has been organized at the Agricultural College, taking in as members the professors, teachers, and students of the various agricultural classes. Nearly forty of the bright farmers' boys of Michigan enrolled as charter members. We look for good work from this Grange all along the line: spirited and thorough discussion of all farm, and economic questions and perfect ritualistic work. The fertile brain of Dr. Beal will aid the new Grange in its ambition to become as it should, the banner Grange of Michigan. These young men going back to their farm homes after the college course is completed, will give a new inspiration to the Granges of their respective counties.

On April 4th Brother Jason Woodman reorganized the long dead Grange at Kalamo, Eaton county, "mostly new members." The Worthy Lecturer writes: It is the younger class of farmers who are in the most active part of life's battle, who see the necessities of such an organization as the Grange.

Quincy Grange of Branch county dedicated their new hall on the 11th, Worthy Past Master C. G. Luce acting for the State Grange.

Brother C. H. Farnum, Assistant Deputy for Berrien county, reorganized Home Grange on the evening of the 8th. He also says that he has another *new* Grange, in sight. What Brother Farnum is doing, every County Deputy in the State can do.

Here is the way to do it: The social committee of the Fruit Ridge Grange furnished the \$16.00 cash that was necessary to send the GRANGE VISITOR to the forty families represented in the Grange. This is the second year of the committee's work on this line and they can engage in no work of more real benefit to the Order than this distribution of Grange reading.

Aug-ment Pienies and Grange Assemblies.

Now is the time to plan for them. Every county Grange in the state should, at their next meeting, consider the subject, and decide to hold a one or two days' assembly with such appropriate exercises as will popularize the Grange with all who hear or read. Counties can well unite in holding such meetings. All that is needed is for some energetic members to set the ball rolling and lead in making the necessary arrangements.

BROTHER J. H. BRIGHAM,

Master of the National Grange, has been secured for two weeks in August, commencing the 20th. Applications should be made to me early, so schedule of route can be made out on the cheapest possible basis. GEO. B. HORTON.

F · H · R · C

MOTTO—"Begin; keep at it."

Letters From Readers.

I am not a farmer, I am sorry to say, but a city man, city born and bred. But that does not prevent me from being very much interested in everything that pertains to farmer and farming. Therefore, when I saw an article in the paper in regard to the Farm Home Reading Circle, I was not satisfied until I had sent my name to the secretary and became enrolled as a member, and I assure you that I did not regret it. I was very much surprised by the completeness of the course of reading. A farmer could not make better use of his time and money than by joining this circle. If he only read an hour each evening, when spring came, he would be surprised by the amount of good practical knowledge that he had acquired.

I am aware that some farmers are prejudiced against the "educated farmer," but the world is progressing, and the farmer, to keep pace with it, must be educated. Brawn is all right, but it must be controlled with brains.

It used to be said of a man that was fit for nothing, "O make a farmer of him, it's all he is good for." But that day has gone by forever. The farmer of today in order to be successful must not only be a thorough agriculturist, but also a good business man. He must not only know what, when and where to plant, but what, when and where to sell. The Farm Home Reading Circle meets all the requirements of the first and a good newspaper the second.

I was told by a farmer last summer that

he did not believe in education for the farmer. "Why," said he, "I worked for an educated farmer once and he didn't know beans when the bag was open." On making some inquiries I found it was so. But the educated farmer was a graduate from a law college. But I could not get my friend to join the F. H. R. C. E. T. NICHOLS. Detroit.

I am glad to say anything to induce every thinking farmer to read in this course. My plan of action is to make a business of it in the winter time, and in the summer time to re-read the different subjects as they come up in farm work, especially if I did not have a clear idea of what was said on the subject. I think that the books are more suited to be read in the winter than summer. I find it easier to get and keep interested in reading, that is general reading, if it is not too closely connected with my occupation. When it has rained every other day for a month, to read that thorough cultivation is sure death for weeds is not very interesting or soothing to one's feelings, where the corn and weeds are about the same size.

I have a shelf in the sitting room that will hold about 125 books, and there is an understanding that nothing else is to be placed on the shelf but the books I am reading, and I am supposed to lay them there instead of on the floor or some other equally convenient place. The object is that if I had to go to the book case I would be apt to pick up a newspaper or GRANGE VISITOR.

I have thought that it would be well to have a department in the VISITOR where we could ask foolish questions and answer them ourselves or have someone else answer them.

One question I would like to ask is, "What kind of rocks were ground up to make clay?" FRANK L. LEE. Farmington.

Books as Tools.

An old saying "of the making of books there is no end" is particularly true of the present time. Books are so numerous and cheap that we are in danger of not appreciating their real value.

Books are written, printed, bought and sold by different people for different purposes. Some are entirely ornamental and occupy conspicuous places in parlors and drawing rooms of the wealthy. Others are written for use and with a view of permanence to benefit someone.

Ruskin says, that if an author were to define his book he would do it thus: "This is the best of me, for the rest I ate and drank and slept, loved and hated like another, my life was as the vapor and is not; but this I saw and knew, this if anything is worthy of preservation."

We have often been told that the best use we can put a book to is as a friend. If tired, it will rest us, if down hearted, it will cheer us, if lonesome it will be a companion for us, and is even better than a friend in the flesh, as it never resents our ill treatment of it, pays no attention to our moods or little frailties, never repeats to another what we never ought to have said. In short, is the same true and trusted friend at all times and under all circumstances.

Having made friends of books, the next best use we can make of them is as tools, and a large part of the books made are for this particular purpose. Under this head come all school books and reference books of all kinds. Other books are tools or not, according to the use we make of them.—Josephine Harper in Kansas Industrialist.

On the Unit System.

The following was passed by a farmers' institute held at Batavia Grange hall: *Whereas*, A bill is now before the legislature of this state proposing a radical change in our school laws by changing the present district unit school law to the township unit system, and, *Whereas*, this Farmers' Institute, held at Batavia Grange hall on this 8th day of March, 1895, has discussed both the present and the proposed law, therefore, be it

RESOLVED, By those attending this farmers' institute, that we express our unqualified disapproval of the township unit system, and ask our representatives in the legislature to use all honorable means to defeat the bill.

Com. { O. A. VANDERBILT,
{ J. T. STRYKER.

Most Wrongs can be Righted by Acting Together.

The work of our Order is great enough to enlist the best efforts of all its members, and it will be effective in proportion to the work we do, if properly directed. For the burdens now borne by agriculture we are largely responsible, so long as we do nothing to remove them. We resolve too much and act too little. It should not be left to your leaders to make recommendations, while the "rank and file" sit idly by and expect someone else to carry them into effect. Most wrongs can be righted

when we are ready to act together.—J. H. Hale, Past Master Connecticut State Grange.

The Dwarf Essex Rape.

With the kind permission of the editor I should like to say something to the readers of this paper about this magnificent forage plant. It is my settled conviction that the Dwarf Essex rape will yet prove a source of great profit to the sheep growers of this country when they come to know more about its value. Years ago I ventured a statement that ten millions of sheep and lambs would be fattened yearly on the Dwarf Essex rape grown in various states of this wide republic. This statement at the time was regarded as rash and extravagant, but in reference to it I now desire to say that never before was I so firmly convinced that it will become a happy reality.

Now, farmers, I want to tell you something about the Dwarf Essex rape. And I want you to tell us something about it next season. I want you to sow some rape this very season and prove its value for yourselves, and then when you have grown it send a letter to the editor of this paper giving your experience that others may share the knowledge with you. I take it for granted that such communications will be welcome, and when you do forward the results of your experience for publication, be careful, please, not to tell anything which would make you blush if you should happen to see it embellished in some permanent record and published in book form.

The Dwarf Essex rape is a forage plant which very closely resembles what farmers in Canada call rutabagas. The leaves and stem only are good for food. It is only good for sheep, swine, cattle, and poultry, but more especially for sheep. It will produce twelve tons of green forage on good land. It has twice the feeding value of good clover, and is even more palatable. The sheep may be turned in upon it lean, and two months later taken from the field fat. They may be allowed to stay upon it during all the days of sunshine from the time they get used to the new diet until they have eaten it right down to the ground. When it has been eaten off the ground is in a magnificent state for growing a crop of grain. Do not smile, now, farmers, I can't afford to risk my reputation for veracity for the sake of making a pen picture.

There are many ways of sowing it. These include the following: 1st. Sow about one pound of seed per acre along with spring grain to furnish pasture in autumn after the grain has been cut. 2d. Sow about three to five pounds of seed broadcast on good, strong, well-prepared land, and when about a foot high eat it off, and then later eat it off again. 3d. Sow it in the same way about the end of June and when fully grown, two months later, feed it off. 4th. Sow it broadcast on the summer fallow and eat it off. 5th. Sow in drips about two feet apart, using one to

two pounds of seed to the acre. Cultivate as corn is cultivated, and in so doing clean the land. This is to use after the grain has been harvested, and if there is moisture enough in the land. Sow on good soil, preferably a black loam, strong sandy land, or a muck soil, and if the land is not rich enough, make it so before sowing the seed.

The writer has grown it by nearly all these methods and with success. But the method which may be the best in one state may not be the best in another. The very best way of growing it for each locality can only be ascertained by actual trial, and this is what I am asking the farmers to find out, and to help each other in finding out.

Now farmers, be sure and publish the results of your experiments. In this way we can get at the real value of rape for each locality in two or three years quite as effectively as the same thing could be done in twenty years when every man is inclined to selfishly hoard his experience in his own ungenerous bosom.

The growth of Dwarf Essex rape will, without any doubt, exert a powerful influence on sheep industry in this country, and because of this it should be tried. It is one factor that will help to furnish this country with a class of mutton which would be eagerly sought for in the markets. And it is one of those factors that will tend to arrest that unjustifiable slaughter of sheep in this country during recent years, because it will help to cheapen the cost of production. Be sure to grow some Dwarf Essex rape this season, more or less, and be equally sure to let everybody hear from you next year.

PROF. THOS. SHAW.
St. Anthony Park, Minn.

I am a strong party man, but above all, I am an American, and I believe that there are times when party revolution is true patriotism, and not only so, but the wisest partisanship. If this be party treason, let my enemies make the most of it. I am ready in the future, as I have been in the past, to take the consequences.—William B. Hornblower.

Interest the boys in the farm, by either giving them land to manage or stock, as their own, and then do not rob them of their just dues. Pay your boys something for their labor, and you will not have to tie them to a tree to "keep them on the farm."—W. M. Barnum, in New York Tribune.

STATE OF OHIO, CITY OF TOLEDO, ss.
LUCAS COUNTY.
FRANK J. CHENEY makes oath that he is the senior partner of the firm of F. J. CHENEY & Co., doing business in the city of Toledo, county and state aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of catarrh that cannot be cured by the use of Hall's catarrh Cure.
FRANK J. CHENEY.
Sworn to before me and subscribed in my presence, this 6th day of December, A. D., 1895.
A. W. GLEASON,
Notary Public.
Hall's catarrh cure is taken internally and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.
F. J. CHENEY & Co., Toledo, O.
Sold by druggists, 75c.

SPRING WORK...

Has begun and you will not have time to help the



But we must ask you to make "One more effort" for getting subscribers. What we want is for each Grange to hold

A Grange Visitor Social

and devote the proceeds to sending the VISITOR to Patrons and farmers. We could tell you how much we need your help, but will only say

DON'T FORGET US.

The Peoples' Savings Bank
OF LANSING, MICHIGAN.
Capital, \$150,000.00
COR. WASH. AND MICH. AVENUES,
LANSING.
OFFICES: (FRANKLIN ST., NORTH LANSING.)

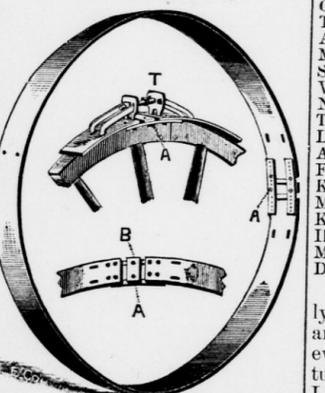
W. J. BEAL, President;
A. A. WILBER, Vice President;
C. H. OSBAND, Cashier.
We transact a general banking business. In our savings department we receive deposits of one dollar or over and pay interest thereon if left three months or longer at 4 per cent.
In our commercial department we receive accounts of merchants and business men. We issue interest bearing certificates of deposit. If you have any banking business come and see us.

A. H. WARREN,
Ovid, Mich.
Breeder of IMPROVED
Chester White Swine
and Lincoln Sheep. If you want a nice fall pig, and at prices that will astonish you, just let me hear from you stating what you want. I have pigs that will suit.

ARE YOU OPOSED TO TRUSTS?
Will you back those that fight them?
EVERY FARMER SAYS YES.
Then buy your

Harrows and Cultivators
of the manufacturer that has spent thousands of dollars fighting combines.
THE WHIPPLE HARROW CO.
ST. JOHNS, MICH.

WHIPPLE'S SUPPLEMENTARY
Adjustable Wide Tire
FOR FARM WAGONS.



\$10.00 buys a complete set (including the tightener) of STEEL TIRES 4 1/2 inches wide, warranted to carry 4,000 lbs., that can be put on the wheels of any farm wagon over the narrow tire, and can be attached or detached by one man in twenty minutes. In ordering give diameter of wheels. Address

E. E. WHIPPLE,
ST. JOHNS, MICH.

Duroc Jersey Hogs are PRACTICAL PROLIFIC PROFITABLE ORKERS.
Herbert W. Mumford, Moscow, Mich.
HILLSDALE CO., MICH.
Shropshire Sheep.

We are sold out of males fit for service, but are offering a CHOICE LOT OF YOUNG SOWS at reasonable rates.

Write for description and prices. Look up our advertisement in previous issues of the VISITOR.

Hillsdale County Herd
Poland China Swine.
Choice stock for sale at reasonable prices, and Guaranteed as represented.

JNO. BOWDITCH,
HILLSDALE, Mich.

On Top
Good beef is there now. Merinos will not stay below long. We have right stock at right prices.

Call or write
W. E. BOYDEN,
Delhi Mills, Mich.

COLE'S Illustrated FREE Garden Annual SEEDS. The Best and latest. NOTICES in BEANS, CORN, LETTUCE, MELON, ONION, & SEED POTATOES, PARSNIPS, SWEET PEAR. Save money in buying from us. Complete list. 15¢ Extra with orders. Address COLE'S Seed Store, Pella, Iowa

WOVEN WIRE FENCE
Horse high, bull strong, pig and chicken tight. Make it yourself for 13 to 20 cents a rod. 50 styles. A man and boy can make 40 to 60 rods a day. Catalog free. **KITSELMAN BROS.,** Ridgeville, Ind.

HATCH CHICKENS BY STEAM WITH THE MOEL EXCELSIOR INCUBATOR. Thousands in Successful Operation. SIMPLE, PERFECT, and SELF-REGULATING. Guaranteed to hatch a larger percentage of fertile eggs at less cost, than any other incubator. Hatchers made. Send for Circulars Free. **GEO. H. STAHL,** 114 to 122 S. 6th St., Quincy, Ill.

CANCER TUMORS and SKIN DISEASES scientifically treated and cured. NO KNIFE. Book free. Have been cured these diseases a specialty for the last twenty-five years. Address Dr. L. H. Grainger, 50 Hillside Place, Cincinnati, O.

College and Station.

Crimson Clover in Oregon.
Bulletin Oregon Station.

Much interest is manifested in regard to this clover, and from plat experiments the writer is led to believe that it will be a success in a large portion of the Willamette valley, and along the coast where the winters are not so severe. It has been grown in plats two years, making a good yield. This season we have two acres on the farm for a more thorough trial. Our climate is very similar to that of other portions of the United States where it has been such a marked success.

If sown in September on carefully prepared ground a full crop of two or three tons of hay per acre can be cut the following season. It will not last as long as common red clover. One crop is about all that will pay from one seeding. The second crop is very light.

Yield of Sweet Potatoes.

According to the census of 1890, the United States produces annually in round numbers 44,000,000 bushels of sweet potatoes. The eighteen states growing the greatest quantities are as follows:

State	Bushels
North Carolina	5,665,391
Georgia	5,616,317
Texas	5,505,452
Alabama	4,339,170
Mississippi	3,207,125
South Carolina	3,061,040
Virginia	2,816,041
New Jersey	2,254,344
Tennessee	1,973,625
Louisiana	1,912,080
Arkansas	1,822,960
Florida	1,749,679
Kentucky	904,125
Missouri	561,551
Kansas	533,846
Illinois	451,125
Maryland	408,549
Delaware	202,914

New Jersey is the most northerly state in which sweet potatoes are extensively cultivated. However, good crops have been matured at Geneva, New York, and Lincoln, Neb., on the grounds of the agricultural experiment stations. In gardens still farther north the sweet potato has been cultivated. Maine, for example, is credited in the last census with 267 bushels.—*Farmers' Bulletin No. 26, Washington, D. C.*

Hints for the Dairy.
Bulletin North Dakota station.

1. Use tin pails and vessels throughout, and when purchasing tinware, have your tinner solder around all rims and points where dirt can accumulate.

2. Clean all utensils as soon as possible after using.

3. In washing tinware first use tepid water, then wash with hot water and scald with boiling water. Place them in the sun to dry and air. Never put the covers on after scalding.

4. All wooden utensils should be washed with hot water, scalded, and placed where they will air.

5. Scald and cool all wooden utensils before using them. This will keep the butter from sticking.

6. Never, under any consideration, put the hands in the butter to take it from the churn or work it; handle with the scoop or ladle.

7. Never fill the churn more than half full of cream, and be sure it is at the right temperature. The finger is not a reliable thermometer. A good dairy thermometer can be purchased for twenty-five cents.

8. You will get a better quality of butter where it takes from forty to sixty minutes to churn it.

9. Be regular in dairy work, from feeding and milking the cows to churning and marketing the butter.

10. Cater to the tastes of your customers at all times in coloring, salting, and packing butter.

Seed Exchange of Wheat.
Bulletin North Dakota Station.

1. Varieties of wheat do not degenerate because of continuous growth upon the same soil.

2. Different samples of seed of same variety, which were grown upon different soils under like climatic conditions, will produce a like crop when seeded under sameness of conditions.

3. The theory that proper wheat culture demands a frequent change of soil is fallacious.

4. It is not demonstrated that

any advantage is gained by the use of seed previously grown under different climatic conditions than those under which it is to be used.

5. Failure often results from injudicious seed exchange.

6. Smut and weeds are often introduced by change of seed.

7. Seed exchange, as practiced, precludes any proper methods of crop improvement by careful culture and seed selection.

8. Only perfect formed, plump, hard grain should be seeded, but each farmer should grow his own seed, attempting to bring it to the highest grade of perfection and purity of variety by proper methods of selection and culture without seed exchange. This will insure pure varieties, freedom from smut, less weeds, and heavier yielding, better milling wheats.

Crimson Clover.
Report Maryland Station.

As has been stated, the past two seasons have been very unfavorable for seeding crimson clover, as a large proportion of the seed sown throughout the state perished after germinating, for the want of moisture, and a feeling prevails in some localities where it has been quite generally tried, that it is an uncertain crop, from the fact that it is usually sown at a time when hot, dry weather is liable to destroy it. Where the expectation is to seed it in corn at the last working, the aim should be to plant the corn early, that the cultivation of the crop may be completed as early in the season as possible, thus giving the young plants an opportunity of establishing themselves before the hot dry weather commences. Many make the mistake of sowing after the corn has been worked the last time, and more failures result from this than any other cause. The seed should be sown just ahead of the last working, which should be a very shallow one.

As there has been some complaint of seed failing to germinate, it is a very safe rule to test it before buying. Crimson clover seed being much larger than that of ordinary clover, a greater quantity should be seeded to the acre, particularly as the price of it has been getting lower each year. Fifteen pounds to the acre is little enough to sow. If a nurse crop is used, such as rye or barley, it can be seeded the latter part of August or early in September after the corn has been cut off. A light top dressing of manure will take the place of the nurse crop and protect it from the effects of frost.

Effect of Dehorning.
Bulletin North Dakota Station.

The station herd was divided into two lots of seven cows each and dehorned. Lot number 1 was dehorned April 25 and lot number 2 on May 2. Keystone dehorning clippers were used, and did very effective work, requiring two minutes on the average for three men to dehorn a cow, including the change of halter.

Care should be taken to cut the horns close enough to prevent their growing out as stubs. From an eighth to a quarter of an inch of hair should be taken off with the horn.

This experiment indicates that very little loss in butter results in dehorning milk cows. There is quite an advantage in the practice, as the dehorned animals are much more easily handled and injure one another less frequently. Vicious bulls are usually managed quite readily when dehorned, and stock cattle which are not confined by halter, stanchion, or otherwise can be sheltered in a much smaller shed.

Experiments With Potatoes.
Summary of Results.
Bulletin Maryland Station.

1. In the test of early varieties, the leading yields were Columbus, 169 bushels; Charles Downing, 167 bushels; Early Ohio, 149 bushels; Garfield, 149 bushels; New Queen, 145 bushels; and Early Cyclone, 143 bushels per acre.

2. Crimson clover plowed down for potatoes increased the value of the crop \$8.75 per acre.

3. Spraying with Bordeaux mixture increased the yield twenty-four bushels to the acre.

4. Early spraying increased the yield twenty-four bushels to the acre over late spraying.

5. In the test of wide and narrow rows the narrow rows gave an increase yield of twenty-two bushels to the acre.

6. Shallow and deep working gave practically the same results.

7. Ridge culture gave slightly better yields than level culture.

8. Early and late cultivation gave about the same yields.

9. In the test "planting different size seed" (in ground which was exceptionally dry). The net profits were very largely in favor of the plot planted with whole small potatoes.

Grange and School.
Written for Grangers' and teachers' institute at Hesperia, by Mrs. M. W. Scott Sr.

The Grange and the School have been married;
Best match in the whole country wide.

The Grange, a progressive companion,
The school, alma mater and bride.
Their children are knowing and witty,
They count them by dozen and score;
But into this overgrown household
They wish to adopt many more.

They're crowded for room in two counties,
It's time to make up a new state.
McClure! can't they swing round the circle.
And take in the whole of the state?
Wherever a Grange is located,
Or wherever a school house stands,
To educate old folks and children,
The Grange and the school must join hands.

Must unite for a nobler manhood—
For training the heart, hand, and brain,
To widen and smooth the rough pathway,
To usefulness, honor, and fame.
To be honest, be just, and unfeared,
By the sins of earth undefiled,
Unite to lead onward and upward
The little white soul of the child.

And to guide them through fields of knowledge,
Commencing in life's early morn,
To plant good seed and dig up the weeds,
As good Patrons tend the young corn.
'Twill pay as well at the harvest time
To reap a good crop from the brain,
Pay for all the labor and trouble
As well as the cattle and grain.
The hand and the brain both must labor

To subdue the earth which we till,
To conquer in the fields of science,
And bind Nature's forces at will.
Work together to make the world better,
Peace, plenty in nation and home;
We must learn that all men are brothers,
And hasten the good time to come.
The old folks are fast growing older,
They're falling and fading away.
The children must soon take their places,
Who sit in the school room today.
To fit them for life's varied duties.
With courage to stand for the right,
We must give them brave and true leaders
As ever won battle in fight.

These boys will then guard home and nation,
And if ever the war clouds roll,
They'll carry the star-spangled banner
If it need be from pole to pole;
And our girls, like old Roman matrons,
To household and country be true,
When summoned before the Great Master,
Stand best in the final review.

A nation that's torn and divided
Cannot long remain a free land;
The household that's sown with dissension
Has foundations resting on sand.
Then unite and work all together
For freedom in ages to come,
For old folks and young folks and children
Unite the Grange, the school, and home.

Grange and Home.
Farmers with their wives and children have come together in the Grange, cultivated sociability, friendship, and confidence in each other, submitted to useful discipline, learned parliamentary usage, accustomed themselves to read and recite essays, and speak in debate and on the rostrum. Under the direct influence and teachings of the Grange, thousands of rural homes have been beautified and their surroundings made more cheerful and attractive; and many sad and despondent hearts have been made to rejoice in happier homes and more endearing family ties. The early care and training of children has received attention, and many parents have been made happier in realizing its salutary influence upon the lives of their sons and daughters, and their growing attachment for home; and in being able to keep the loved ones upon the farm.—*J. J. Woodman.*

Grange and Education.
Education is the chief end and purpose of our Order, and the good work goes steadily on. About twenty-seven thousand subordinate Granges have already been organized, every one of which has been and is a school for the farmer and

his family. Isolation, distrust, superstition, prejudice, and ignorance are giving place to social enjoyment and culture, confidence, well-grounded faith, liberality, charity, and intelligence. Henceforth the farmer will be consulted, and his opinion will be received with respect and be duly considered. He is no longer the "meat" of self appointed political bosses, but a man who feels the pulsation of power heretofore neutralized and wasted. The public official or political party that hereafter ignores or discriminates against agriculture and the farmer will meet with prompt rebuke. Never before in the history of our country was every act, utterance, and vote of public officials scrutinized as they are today. Every election will be a call to judgment. Promises must be kept; mistakes will not be overlooked.—*J. H. Brigham, Master National Grange.*

One Fare For Round Trip Excursions to Southern Cities.
For homeseekers to points in the southern states, the C. & W. M., and D. L. & N. lines will sell tickets on April 22 and 30 at one way fare for round trip. Tickets good twenty days. Ask agents for full particulars, or address
Geo. DeHaven, G. P. A., Grand Rapids.

OFFICIAL DIRECTORY
Officers National Grange.

Master—J. H. Brigham, Delta, Ohio
Overseer—E. W. Davis, Santa Rosa, Cal.
Lecturer—Alma Messer, Rochester, Vt.
Steward—M. B. Hunt, Palmyra, Maine
Ass't Steward—A. M. Belcher, Rhode Island
Chaplain—S. L. Wilson, Mississippi
Treasurer—Mrs. E. M. McDowell, New York
Secretary—John Trimble, Washington, D. C.
Gate Keeper—W. E. Harbaugh, Missouri
Ceres—Mrs. M. S. Rhone, Pennsylvania
Pomona—Mrs. Annie L. Bull, Kansas
Flora—Mrs. Annie L. Bull, Minnesota
Lady Ass't Stew'd—Mrs. Amanda Horton, Mich.

Executive Committee.
Leonard Rhone, Center Hall, Pennsylvania
R. R. Hutchinson, Virginia
J. J. Woodman, Paw Paw, Michigan

Officers Michigan State Grange.
Master—G. B. Horton, Fruit Ridge
Overseer—M. T. Cole, Palmyra
Lecturer—Jason Woodman, Paw Paw
Steward—George L. Carlisle, Kalkaska
Assistant Steward—J. H. Martin, Box 42, Grand Rapids.

Executive Committee.
J. G. Ramsdell, Chairman, Traverse City
H. D. Platt, Ypsilanti
C. G. Luce, Coldwater
W. E. Wright, Battle Creek
Perry Mayo, Battle Creek
W. F. Taylor, Shelby
F. W. Redfern, Maple Rapids
G. B. Horton, Ex Officio, Ann Arbor
Jennie Buell, Ann Arbor

Committee on Woman's Work in the Grange.
Mrs. Mary A. Mayo, Battle Creek
Mrs. Mary Sherwood Hinds, Stanton
Mrs. Belle Boyce, Baroda

General Deputy Lecturers.
Mary A. Mayo, Battle Creek
Hon. J. J. Woodman, Paw Paw
Hon. C. G. Luce, Coldwater
Hon. Perry Mayo, Battle Creek
Hon. Thomas Mars, Berrien Center
Jason Woodman, Paw Paw
A. E. Palmer, Kalkaska
Judge J. G. Ramsdell, Traverse City
D. D. Baell, Union City

County Deputies.
D. H. Stebbins, Atwood, Antrim Co.
L. C. Root, Allegan, Allegan Co.
R. B. Reynolds, Inland, Inland Co.
George Bowser, Dowling, Barry Co.
James D. Studley, Union City, Branch
B. V. Clark, Buchanan, Berrien Co.
J. W. Ennest, St. Johns, St. Johns Co.
Mary A. Mayo, Battle Creek, Calhoun Co.
E. B. Ward, Charlevoix, Charlevoix Co.
Abram Miller, Easton Rapids, Easton Co.
E. H. Osborn, Dowagiac, Cass Co.
W. H. Bovee, North Star, Gratiot Co.
B. Turner, Flushing, Genesee Co.
E. O. Ladd, Old Mission, Grand Traverse Co.
Mrs. E. D. Nokes, Westland, Houghton Co.
R. A. Brown, Sand Beach, Huron Co.
F. W. Havens, Chandler, Ionia Co.
J. Weston Hutchinson, Fitchburg, Ingham Co.
Robert Dockery, Rockford, Kent Co.
Geo. L. Carlisle, Kalkaska, Kalkaska Co.
Hiram Bradshaw, North Branch, Lapar Co.
Fred Dean, Brighton, Livingston Co.
E. W. Allis, Adrian, Lenawee Co.
Jacob Rosenstiel,

George H. Riga, Monroe, and Lenawee Co.
George H. Lester, Crystal, Montcalm Co.
D. R. Van Amberg, Bear Lake, Manistee Co.
Jesse E. Williams, Big Rapids, Mecosta Co.
E. S. Lawson, Disco, Macomb Co.
Will G. Parish, Flat Rock, Monroe Co.
T. F. Rogers, Ravenna, Muskegon Co.
W. W. Carter, Ashland, Newaygo Co.
A. J. Crosby, Ypsilanti, Oakland Co.
Robert Alward, Hudsonville, Ottawa Co.
R. H. Taylor, Shelby, Oceana Co.
D. Murdin, Vernon, Shiawassee Co.
W. B. Canfield, Avoca, St. Clair Co.
W. B. Langley, Centerville, St. Joseph Co.
Robert Treby, Birch Run, Saginaw Co.
M. C. Kerr, Carsonville, Benzie Co.
Helen A. Fiske, Lawrence, Van Buren Co.
Henry Hurd, Plymouth, Wayne Co.
John A. McPougall, Ypsilanti, Washtenaw Co.
R. C. Norris, Cadillac, Wexford Co.

Revised List of Grange Supplies
Kept in the office of Sec'y of the MICHIGAN STATE GRANGE
And sent out post-paid on receipt of cash order, over the Seal of a Subordinate Grange, and the signature of its Master or Secretary.

Porcelain ballot marbles, per hundred, \$0 75
Secretary's ledger, .. 85
Secretary's record, .. 85
Treasurer's orders, bound, per hundred, 35
Secretary's receipts for dues, per hundred, 35
Treasurer's receipts for dues, per hundred, 35
Applications for membership, per hundred, 50
Withdrawal cards, per dozen, 25
Demits, in envelopes, per dozen, 25
By-laws of the State Grange, single copies, 10c; per dozen, 75
"Glad Echoes," with music, single copies, 25c; per dozen, 3 00
Grange Melodies, single copy, 40c; per doz. 4 00
Opening Song Card, 2c each; 15c per 50; 100 1 35
Rituals, 7th edition (with combined degrees), 25c each; per dozen, 2 75
Rituals, 5th degree, set of nine, .. 1 80
Seculars, Juvenile, single copy, .. 40
Notice to delinquent members, per 100, .. 40
American Manual of Parliamentary Law, .. 40
Digest of Laws and Rulings, .. 25
Roll books, .. 15
Sample package co-operative literature, .. 15
Kelley's History of the Grange, .. 75

Write for prices on gold pins, badges, working tools, staff mountings, seals, ballot boxes and any other Grange supplies. Address
MISS JENNIE BUELL,
Ann Arbor, Mich.

PATRONS' PAINT WORKS.

PATRONS' PAINT WORKS have sold Ingersoll Paint to the Order P. of H. since its organization. House Paints and Cheap Paints for Barns and Outbuildings, 10,000 Farmers testify to their merits. Grange Halls, Churches, School Houses, Dwellings, all over the land, some of them painted 15 years ago, still looking well, prove them the most durable.

MICHIGAN PATRONS—"Buy direct from factory" at full wholesale prices and save all Middlemen's Profits.

O. W. INGERSOLL, PROP.
Oldest Paint House in America,
241-243 Plymouth st., Brooklyn.

Ingersoll's Liquid Rubber Paints

Indestructible Cottage and Barn Paints

Sample Color Cards, "Confidential" Grange Discounts, Estimates and full particulars **MAILED FREE.** Write at once.

Synopsis of Preceding Chapters.

Part I is a reprint of the reminiscences of John H. Watson, M. D., of the medical department of the British army. CHAPTER I—Dr. Watson returns to London on leave of absence. He is introduced to Sherlock Holmes, a consulting detective, and they take lodging apartments together. II, III, and IV.—Sherlock Holmes makes some interesting statements as to the marvels of observation. He is consulted concerning a mysterious murder in an empty house at the Lauriston Gardens. A wedding ring is found by the body of the dead man, but the motive for the crime cannot be learned. V.—Sherlock Holmes advertises the ring as one and near the place. It brought a reply and a man for the ring in the person of an old woman, who said it belonged to her daughter. Holmes follows, and she proves to be a man in disguise who gives him the slip.

CHAPTER V.

Our morning's exertions had been too much for my weak health, and I was tired out in the afternoon. After Holmes' departure for the concert, I lay down upon the sofa and endeavored to get a couple of hour's sleep. It was a useless attempt. My mind had been too much excited by all that had occurred, and the strangest fancies and surmises crowded into it. Every time that I closed my eyes I saw before me the distorted, balloonlike countenance of the murdered man. So sinister was the expression which that face had produced upon me that I found it difficult to feel anything but gratitude for him who had removed its owner from the world. If ever human features bespoke vice of the most malignant type, they were certainly those of Enoch J. Drebber of Cleveland. Still I recognized that justice must be done, and that the depravity of the victim was no condonement in the eyes of the law.

The more I thought of it, the more extraordinary did my companion's hypothesis that the man had been poisoned appear. I remembered how he had sniffed his lips and had no doubt that he had detected something which had given rise to the idea. Then, again, if not poison, what had caused the man's death, since there was neither wound nor marks of strangulation. But, on the other hand, whose blood was that which lay so thickly upon the floor? There was no signs of a struggle, nor had the victim any weapon with which he might have wounded an antagonist. As long as all these questions were unsolved I felt that sleep would be no easy matter either for Holmes or myself. His quiet, self confident manner convinced me that he had already formed a theory which explained all the facts, though what it was I could not for an instant conjecture.

He was very late in returning, so late that I knew that the concert could not have detained him all the time. Dinner was on the table before he appeared. "It was magnificent," he said as he took his seat. "Do you remember what Darwin says about music? He claims that the power of producing and appreciating it existed among the human race long before the power of speech was arrived at. Perhaps that is why we are so subtly influenced by it. There are vague memories in our souls of those misty centuries when the world was in its childhood."

"That's rather a broad idea," I remarked.

"One's ideas must be as broad as nature if they are to interpret nature," he answered. "What's the matter? You're not looking quite yourself. This Brixton road affair has upset you."

"To tell the truth, it has," I said. "I ought to be more case hardened after my Afghan experiences. I saw my own comrades hacked to pieces at Maiwand without losing my nerve."

"I can understand. There is a mystery about this which stimulates the imagination. Where there is no imagination there is no horror. Have you seen the evening paper?"

"No."

"It gives a fairly good account of the affair. It does not mention the fact that when the man was raised up a woman's wedding ring fell upon the floor. It's just as well it does not."

"Why?"

"Look at this advertisement," he answered. "I had one sent to every paper this morning immediately after the affair."

He threw the paper across to me, and I glanced at the place indicated. It was the first announcement in the "Found" column. "In Brixton road this morning," it ran, "a plain gold wedding ring, found in the roadway between the White Hart tavern and Holland grove. Apply Dr. Watson, 221b Baker street, between 8 and 9 this evening."

"Excuse my using your name," he said. "If I used my own, some one of these duffers would recognize it and want to meddle in the affair."

"That is all right," I answered. "But, supposing any one applies, I have no ring."

"Oh, yes, you have," said he, handing me one. "This will do very well. It is almost a facsimile."

"And who do you expect will answer this advertisement?"

"Why, the man in the brown coat, our florid friend with the square toes. If he does not come himself, he will send an accomplice."

"Would he not consider it as too dangerous?"

"Not at all. If my view of the case is correct, and I have every reason to believe that it is, this man would rather risk anything than lose the ring. According to my notion, he dropped it while stooping over Drebber's body and did not miss it at the time. After leaving the house he discovered his loss and hurried back, but found the police already in possession, owing to his own folly in leaving the candle burning. He had to pretend to be drunk in order to allay the suspicions which might have been aroused by his appearance at the gate. Now, put yourself in that man's place. On thinking the matter over it must have occurred to him that it was possible that he had lost the ring in the road after leaving the house. What would he do then? He would eagerly look out for the evening papers in the hope of seeing it among the articles found. His eye, of course, would light upon this. He would be overjoyed. Why should he fear a trap? There would be no reason in his eyes why the finding of the ring should be connected with the murder. He would come. He will come. You shall see him within an hour."

"And then?" I asked.

"Oh, you can leave me to deal with him then. Have you any arms?"

"I have my old service revolver and a few cartridges."

"You had better clean it and load it. He will be a desperate man, and though I shall take him unawares it is as well to be ready for anything."

I went to my bedroom and followed his advice. When I returned with the pistol the table had been cleared, and Holmes was engaged in his favorite occupation of scraping upon his violin.

"The plot thickens," he said as I entered. "I have just had an answer to my American telegram. My view of the case is the correct one."

"And that is?" I asked eagerly.

"My fiddle would be the better for new strings," he remarked. "Put your pistol in your pocket. When the fellow comes, speak to him in an ordinary way. Leave the rest to me. Don't frighten him by looking at him too hard."

"It is 8 o'clock now," I said, glancing at my watch.

"Yes. He will probably be here in a few minutes. Open the door slightly. That will do. Now put the key on the inside. Thank you. This is a queer old book I picked up at a stall yesterday. 'De Jure Inter Gentes,' published in Latin at Liege in the Lowlands in 1642. Charles' head was still firm on his shoulders when this little brown backed volume was struck off."

"Who is the printer?"

"Phillippe de Croy, whoever he may have been. On the fly leaf in very faded ink is written, 'Ex libris Gulielmi Whyte.' I wonder who William Whyte was. Some pragmatical seventeenth century lawyer, I suppose. His writing has a legal twist about it. Here comes our man, I think."

As he spoke there was a sharp ring at the bell. Sherlock Holmes rose softly and moved his chair in the direction of the door. We heard the servant pass along the hall and the sharp click of the latch as she opened it.

"Does Dr. Watson live here?" asked a clear but rather sharp voice. We could not hear the servant's reply, but the door closed, and some one began to ascend the stairs. The footfall was an uncertain and shuffling one. A look of surprise passed over the face of my companion as he listened to it. It came slowly along the passage, and there was a feeble tap at the door.

"Come in!" I cried.

At my summons, instead of the man of violence whom we expected, a very old and wrinkled woman hobbled into the apartment. She appeared to be dazzled by the sudden blaze of light, and after dropping a courtesy she stood blinking at us with her bleared eyes and fumbling in her pocket with nervous, shaky fingers. I glanced at my companion, and his face had assumed such a disconsolate expression that it was all I could do to keep my countenance.

The old crone drew out an evening paper and pointed at our advertisement. "It's this as has brought me, good gentlemen," she said, dropping another courtesy. "A gold wedding ring in the Brixton road. It belongs to my girl Sally, as was married only this time twelvemonth, which her husband is steward aboard a Union boat, and what he'd say if he come 'ome and found her without her ring is more than I can think, he being short enough at the best o' times, but more especially when he has the drink. If it please you, she went to the circus last night along with"

"Is that her ring?" I asked.

"The Lord be thanked!" cried the old woman. "Sally will be a glad woman this night. That's the ring."

"And what may your address be?" I inquired, taking up a pencil.

"Thirteen Duncan street, Houndsditch. A weary way from here."

"The Brixton road does not lie between any circus and Houndsditch," said Sherlock Holmes sharply.

The old woman faced round and looked keenly at him from her little red rimmed eyes. "The gentleman asked for my address," she said. "Sally lives in lodgings at 3 Mayfield place, Peckham."

"And your name is—"

"My name is Sawyer. Hers is Dennis, which Tom Dennis married her, and a smart, clean lad, too, as long as he's at sea, and no steward in the company more thought of, but when on shore, what with the women and what with liquor shops—"

"Here is your ring, Mrs. Sawyer," I interrupted in obedience to a sign from my companion. "It clearly belongs to your daughter, and I am glad to be able to restore it to the rightful owner."

With many mumbled blessings and protestations of gratitude the old crone packed it away in her pocket and shuffled off down the stairs. Sherlock Holmes sprang to his feet the moment she was gone and rushed into his room. He returned in a few seconds enveloped in an ulster and a cravat. "I'll follow her," he said hurriedly. "She must be an accomplice and will lead me to him. Wait up for me." The hall door had hardly slammed behind our visitor before Holmes had descended the stair. Looking through the window, I could see her walking feebly along the other side, while her pursuer dogged her some little distance behind. "Either his whole theory is incorrect," I thought to myself, "or else he will be led now to the heart of the mystery." There was no need for him to ask me to wait up for him, for I felt that sleep was impossible until I heard the result of his adventure.

It was close upon 9 when he set out. I had no idea how long he might be, but I sat stolidly puffing at my pipe and skipping over the pages of Henri Murger's "Vie de Boheme." Ten o'clock passed, and I heard the footsteps of the maids as they pattered off to bed. Eleven, and the more stately tread of the landlady passed my door bound for the same destination. It was close upon 12 before I heard the sharp sound of his latch key. The instant he entered I saw by his face that he had not been successful. Amusement and chagrin seemed to be struggling for the mastery, until the former suddenly carried the day, and he burst into a hearty laugh.

"I wouldn't have the Scotland Yarders know it for the world!" he cried, dropping into his chair. "I have chaffed them so much that they would never have let me hear the end of it. I can afford to laugh, because I know that I will be even with them in the long run."

"What is it then?" I asked.

"Oh, I don't mind telling a story against myself. That creature had gone a little way when she began to limp and show every sign of being footsore. Presently she came to a halt and hailed a four wheeler which was passing. I managed to be close to her so as to hear the address, but I need not have been so anxious, for she sang it out loud enough to be heard at the other side of the street. 'Drive to 13 Duncan street, Houndsditch!' she cried. This began to look genuine, I thought, and having seen her safely inside I perched myself behind. That's an art which every detective should be an expert at. Well, away we rattled and never drew rein until we reached the street in question. I hopped off before we came to the door and strolled down the street in an easy, lounging way. I saw the cab pull up. The driver jumped down, and I saw him open the door and stand expectantly. Nothing came out though. When I reached him, he was groping about frantically in the empty cab and giving vent to the finest assorted collection of oaths that ever I listened to. There was no sign or trace of his passenger, and I fear it will be some time before he gets her fare. On inquiring at No. 13 I found that the house belonged to a respectable paperhanger, named Keswick, and that no one of the name, either of Sawyer or Dennis, had ever been heard of there."

"You don't mean to say," I cried in amazement, "that that tottering, feeble old woman was able to get out the cab while it was in motion, without either you or the driver seeing her?"

"Old woman be d—d!" said Sherlock Holmes sharply. "We were the old women to be taken in. It must have been a young man, an active one, too, besides being an incomparable actor. The getup was inimitable. He saw that he was followed, no doubt, and used this means of giving me the slip. It shows that the man we are after is not as lonely as I imagined he was, but has friends

who are ready to risk something for him. Now, doctor, you are looking done up. Take my advice and turn in."

I was certainly feeling very weary, so I obeyed his injunction. I left Holmes seated in front of the smoldering fire, and long into the watches of the night I heard the low, melancholy wailings of his violin and knew that he was still pondering over the strange problem which he had set himself to unravel.

[TO BE CONTINUED.]

Do Not Sleep on the Left Side.
There is little doubt that an immense number of persons habitually sleep on the left side, and those who do so can never, it is said, be strictly healthy. It is the most prolific cause of nightmare, and also of the unpleasant taste in the mouth on arising in the morning. All food enters and leaves the stomach on the right side, and hence sleeping on the left side soon after eating involves a sort of pumping operation which is anything but conducive to sound repose. The action of the heart is also seriously interfered with and the lungs unduly compressed. Hence it is best to cultivate the habit of always sleeping on the right side, although Sandow and other strong men are said to invariably sleep on their backs.—Philadelphia Times.

Animals Respect One Another's Rights.
Truth forces the observer of nature to admit that birds and other creatures apportion the earth among themselves just about as man does. A bear has his boundaries beyond which his fellow bear does not trespass with impunity—the wild rabbit you see on your lawn in the moonlight is the same innocent little creature you have been seeing every night all the summer time—and even the robin that gathers the early worm for his breakfast from your garden will show fight when another comes marauding on his preserve. Nor does this last a year only, for there is good evidence that the same bird will come back to the claim it staked off the year previous.—Meehan's Monthly.

A Devotee of Browning.
"Some of Browning's works?" repeated the gentlemanly book store clerk. "Certainly, ma'am. Which volumes did you want?"

"Oh," said Mrs. Nurich languidly, "wrap me up a quarter of a dozen."

Good Thoughts on Good Roads.
At the Emmet county farmers' institute Wm. Crosby of Harbor Springs said, among other good things: People all over the country are waking up to the importance of good roads, and in the several states recent legislation has been in the direction

1. Of more rigid provisions for carrying out the old systems.

2. More stringent tax laws.

3. Money taxes in place of labor.

4. Local assessments according to benefits.

5. Construction by townships with power to issue bonds.

6. Construction by counties.

7. Construction by state and

8. Construction by convict labor.

In our state mainly all the road work has been done on labor tax by townships which have been divided into road districts. A township commissioner and highway overseers have been elected each year, too often without regard to their qualifications or adaptability to the work, their object apparently being to favor someone, or spite someone, or to elect some one who would permit his neighbors to shirk their duty in relation to road work. An easy, go-as-you-please policy, resulting in little actual work, that poorly done, a big expenditure of money and time, and miserable roads.

A POOR SYSTEM.
I believe all will admit that our roads are poorly managed, owing in part to a bad system and in part to a lack of interest on the part of the people. I am afraid the system will always carry with it a lack of interest. It permits of too many road builders. Each one has so little to do that he feels little responsibility and does not give the subject thought or attention.

Contracts let for improving roads are generally so small that they are hardly noticed and are let at a high price. Besides, smaller jobs cannot be done as cheaply as larger ones in proportion to the

amount of work done. When the office is constantly changing, as is now the case, work cannot be commenced and carried forward as it ought to be. Everything is done hap-hazard, or to meet present emergencies; no system, no concert of action.

But until a better law has been enacted, or until the county law has been adopted in our county, if that should prove to be a good one, we ought to make the most of the township law now in operation. I would like to see the people of Emmet county take more interest in roads. I should like to see the best men in the townships elected as highway commissioners and the best men in the road districts selected as overseers.

It requires as good a man for commissioner as it does for supervisor. Why, then, should we always pay so little attention to this office previous to and at our caucuses and town meetings?

Alleged Jokes.

A Bad Attack—Bell—Was Jones seasick coming over? Pell—Terribly! We were three hours ahead of the record at one time, and he didn't take the slightest interest in it.—Puck.

Teacher—One of the inalienable rights of Americans is free speech. Do you know what that means? Boy—Yes'm; freedom to say what you like to anyone you can lick.—Good News.

It is fair to presume that by this time most women have taken actual possession of the presents they gave their husbands.

Had Been Abroad.—"And isn't Lake Como beautiful?" "Lake Como? Oh yes! I remember it distinctly now—because my husband complained so much that the train was so slow in passing."—Vogue.

It is all right for a man to vote as he prays; but the trouble is most of them pray as they vote—about once a year.—Yonkers Statesman.

Spencer—Show me a man who likes to be interrupted in the middle of a sentence. Ferguson—All right. Come along with me to Sing Sing.—Truth.

Young Husband—Are my eggs done yet, darling? His Bride (in tears)—Oh Jack! I've boiled them for an hour and a half, and they're not soft yet.—Puck.

"What is the use of having two papers in a small town like this?" "So one can refute everything the other says."—Puck.

Exchange Fiend—Darned if I'd put up with that abuse old man Madder gin you about your stand on the town constable matter. Why don't you pitch inter him? Editor (slowly)—My friend, editorially the Jaytown Bugle will continue unterrified and unbought; but if you think that we, either editorially or individually, intend to sass back the only subscriber that pays in cash, you're mistaken!—Puck.

Proud Father—That is a sunset my daughter painted. She studied abroad you know.

Friend—Ah! that explains it. I never saw a sunset like that in this country.—Puck.

The Easter Youth's Companion.
The Youth's Companion, always good, has a way of outdoing itself! The Easter double number just received is an issue of rare excellence. Its handsome and appropriate cover is a fitting introduction to its contents. "Dorothy's Easter," and "A Corner in Eggs," in this number are two Easter stories charmingly told, stories to be read and enjoyed by every member of the family. "The story of a statue" by the Marquis of Lorne, prepared for the Companion in collaboration with the Princess Louise, is an article of unusual interest. "The Romance of a shoal," an adventure story by W. Clark Russell, is one of the best from the pen of this noted writer.

The reader will find in this Easter number of the Companion a rich treat of the very best stories, poetry, practical information and miscellany for which the companion has become famous the world over, and this number alone is well worth the cost of the paper for an entire year.

Notices of Meetings.

VANBUREN POMONA.

To VANBUREN COUNTY PATRONS: Don't forget that VanBuren county Pomona will meet in Lawrence, on Thursday, May 2. I would like to have every member of the Order, resident of this county, present on that day.

LOWELL DISTRICT COUNCIL.

The next meeting of the Lowell District Council will be held at South Lowell Grange hall, on Friday, May 3d, 1895.

INGHAM COUNTY POMONA.

will meet with Alameda Grange Friday evening and Saturday, April 20 and 27. A Japanese student and a Siberian student from the Agricultural College will give talks at this meeting.

NEWAYGO POMONA.

The next meeting of the Newaygo county Pomona Grange No. 11 will be held at Holton Grange hall on the first Wednesday and Thursday of May. The unresponded part of old programme will be called.

NEW PROGRAM.

Music, Holton Grange; address of welcome, master of Holton Grange; response, M. W. Scott Sr.; How closely should the farmer and his family conform to the rules of society in matters of dress on general appearances? William Thompson, Calvin Liley; What do you read and how do you get your time for it? Mrs. Nannie Walker;

At what season of the year and to what extent should the pruning knife be used in the orchard? Charles Proctor.

Recitation, F. H. Crawford. What constitutes a model cow? J. P. Utter, Ed. Clark, W. Stuart.

How do you read the newspaper? Charles Kimball, C. W. Haskins. He cursed the ground for thy sake, Mrs. Phoebe Hall.

To what extent is co-operation in the Grange desirable? Albert Anderson, Augustine White. Do you wish more time for reading? If so, what would you choose? Mrs. Martha M. Scott. Social features and benefits of the Grange. Mrs. Adella Ryerson.

Farm yard manures—should they be applied to the surface or ploughed under immediately? J. A. Zerland, Clark Finney.

Music. Small fruits and vegetables on the farm, Mrs. Nettie Fryover. Shall we work to bring the GRANGE VISITOR up to a paying basis or let it go down, which? L. Reinhold, W. W. Carter.

Reminiscences, Mrs. M. M. Thompson. Some of the causes of loss to the farmer. H. W. Crawford, Y. Hillman. Essay, Beautiful Thoughts, Miss Anna Zerland.

Moral side of the Grange, Bro. Cilley. Fruit, its future in Newaygo county, Neil McCallum, S. V. Walker. Our citizens, Guy Crawford. Song, Will Hutton.

Recitation and music are expected from Geo. and F. Zerland, Miss Lydia Crawford. Mrs. MARY ROBERTSON, Lecturer.

Grange News.

We see, by the Pontiac Gazette, that Orion Grange celebrated an annual maple sugar social April 6. Why did not some brother or sister send the VISITOR a little note about it?

Verona Mills Grange is in a prosperous condition. We meet every two weeks on Saturday evenings with a good attendance. Our lecturer, Miss Ellen Murry, furnishes a good programme for each evening. The members, with few exceptions, do whatever is assigned them to the best of their ability. The questions discussed at our last meeting were as follows: How does foreign immigration affect the farmer? What can we do to keep up an interest in the Grange? We are busy now preparing for a literary entertainment to be held in May.

POMONA AT COLON.

As we came away from the Colon Grange hall April 5, we heard Patrons of Colon Gegeran saying, "We are glad we invited Pomona to meet with us." We also heard the Pomona saying, "It has done us good to come to Colon." A very fortunate misunderstanding occurred about the address of welcome, which was given by Sister Prout instead of Sister Legg as announced. This misunderstanding produced not only a fine and fitting welcome, but a paper from Sister Legg, in which she told us in a ludicrous way that it had been her life-long ambition to write an address of welcome. Although she did not know how to begin it, how to end it, or what to put in the middle, she had hoped to get through it and hear applause at the end of it.

If Sister Legg was deprived the address she was deprived of none of the applause which she had apprehended. A responsible man, although not a Patron, spoke to the Grange relative to shipping our butter and eggs to Detroit and furnishing groceries.

M. A. C. GRANGE.

For some time the idea of organizing what might be a model Grange at the Michigan Agricultural College has been in the minds of some members of the faculty. Through the efforts of Dr. W. J. Beal and others, Capitol Grange of Lansing released from their jurisdiction all students and others connected with the college, and on April 4th, Worthy Master G. B. Horton completed the organization of what is to be called the M. A. C. Grange, with a charter membership of 40. Only members from the Senior and Junior classes were admitted as charter members. Members from under classes are to be admitted upon application. It is thought that the superior work which is done along agricultural lines by the student members who leave the college well drilled in Grange work will give an increased activity to the Michigan Grange.

The officers were nearly all taken from the Senior class, except the lady officers, who belong to the faculty, as follows: M., Chas. H. Alford, Hillsdale Co. O., Howard R. Smith, Hillsdale Co. L., E. Joy Heck, Allegan Co. S., Royal Fisher, Oceana Co. A. S., W. Chandler Bagley, Wayne Co. C., M. W. Fulton, Wayne Co. T., W. C. Stebbins, Nebraska. Sec., E. A. Bowditch, Hillsdale Co. G. K., H. E. Ward, Kent Co. Po., Mrs. Ella S. Taft, Ingham Co. Flora, Mrs. Catherine T. Wheeler, Ingham Co. Ceres, Mrs. Cora Smith, Ingham Co. L. A. S., Mrs. Anna Gunnison, Ingham Co. SECRETARY.

Danby Grange, No. 185, holds the fort about the same as usual. We have lost a few members recently, caused mostly by change of residence, but have also received some new ones. So, taken all together, we feel of about as much importance as ever. The ladies of the Grange furnished a lunch to the voters of Danby on town meeting

day, and succeeded in adding a few dollars to their fund, besides spending a day of real enjoyment.

Our next contest is conducted on the plan of the married people on one side and the unmarried on the other. I surmise that the old folks will have to get to work or else get left, as our young folk are "hustlers." I hear that the young people are "ice cream" hungry.

The last revision of counts in regard to contest work places the count on subscriptions to the VISITOR at three hundred, so if you receive several hundred new subscriptions you may know the cause.

MRS. AMELIA PEAKE, Cor.

A WORD FROM RURAL.

Rural Grange is not dead, neither is she sleeping, but living and growing. We have a contest started, the losing side to furnish supper for all; contest to end the first regular meeting in June. The captains of the contest are Brothers F. W. Templeton and D. Wooley. Bro. Templeton's side is now ahead. REPORTER, J. T. K.

FROM COLLEGE CORRESPONDENT OF "STATE REPUBLICAN."

The long-talked-of Grange organization has at last blossomed out in reality. For fifteen years past it has been the subject of discussion and now the old members of the faculty rejoice and feel that a long felt want has been filled. The organization now holds weekly meetings and about 40 members are enrolled. Faculty, and faculty wives, College employes and students of the different classes are eligible. Capitol Grange of Lansing has exerted a high influence among the farmers of the vicinity and has for a number of years had among its members many of the residents of the College. This organization has indeed brought a great good to the College. It was out of this good demand that the necessary steps were taken to render the affair a certainty and a reality here at the school. There are already good prospects for at least an additional membership of 25 to the Order, which will take a broader position among the agricultural students than among the mechanical, although many mechanicals will desire the work. The seniors hold the majority of the offices in the organization.

LENAWEE COUNTY GRANGE

Met with Madison Grange, on Thursday, April 4. The roads were good, the day was fine, and an enjoyable meeting was held.

Reports of Granges were mostly gratifying. Beside our ten Granges one has been reorganized, and at Cadmus a new Grange which was organized about the first of March now has about sixty members. W. M. Horton of the State Grange also reported the formation of a Grange at the Agricultural College, which Dr. Beal has designed should become the leading Grange in the state.

More than one half the Grange membership of our county receive the reading of the VISITOR from the Grange treasury, the subordinate Grange sending one copy to each family represented in said Grange.

The bill pending before the legislature creating a state statistician was heartily commended by vote, as was also the action of the State Grange in condemning the proposed unit school system.

A paper by Bro. R. A. Woolsey elicited much discussion. He would have a black-board or bulletin-board by the roadside at every home. Also the name of the owner legibly portrayed that "All who ride may read." Mrs. A. S. Bush, and Mrs. A. H. Briggs, old time members, were with us. Nine of the twelve Granges were represented by members present. E. W. A.

DAVISBURG GRANGE, NO. 245.

Is still faithful to the principles of the Order, though their correspondent does not seem to be. We hold regular meetings which are very helpful to us all. At one of these meetings we deliberated upon the advisability of trying to hold together under such discouraging circumstances. After all had given expression to their feelings upon the matter, a motion was made to the effect that we "stand by the Grange as long as we have enough members to hold the charter." It was carried unanimously—not one dissenting vote. We had gone into the discussion with sorrowful hearts and faces more suggestive of tears than smiles. We came out of it radiant and happy, feeling that the "old Guard" may die, but it never surrenders." I think we had not known how dear the Grange had become to us until we were brought face to face with the question of relinquishing it. A lady not a member said recently to the writer, "You Grangers seem to be a band of congenial spirits," as indeed we are.

Since the beginning of the year we have lost one member by death, deeply regretted by us all. We have received no new members as yet, but think the prospect somewhat encouraging. March 1st, we all with other friends were invited to the home of our oldest member, Hon. R. K. Divine, in honor of his 75th birthday, and to rejoice with him that so many years of active usefulness have been given him. Our next oldest member, Bro. E. J. Bigelow, is also in his 75th year, and I think I am safe in saying that few younger men at the present time have as clear and comprehensive a grasp of the vital issues of the day, or a more earnest and convincing manner of presenting their views than these two veterans of our Grange. Of them truly it can be said:—

"Eye hath not seen, tongue hath not told Ear hath not heard it sung. How buoyant and bold though it seems to grow old. Is the heart forever young. Forever young, though life's old age Each every nerve unstrung. The heart, the heart is a heritage That keeps the old man young." MRS. TAYLOR.

Canker Worms in the Apple Orchards.

Press bulletin No. 8, Michigan experiment station, April 1, 1895.

The time for the orchard canker worm is near. The wingless female moths are now climbing the trees from their winter quarters in the ground to deposit their eggs, and the canker worms that hatch from them will soon appear. They are not a difficult pest to control if dealt with intelligently.

Some of the moths lay their eggs in the fall on the apple tree limbs, but more deposit them in the spring. The eggs hatch at the time the buds are swelling, and the young canker worms scatter over the trees and begin feeding at once on the tender foliage. By the time the leaves are partly open the worms are large enough to be easily seen. They are nearly half an inch long, a little larger around than a common pin, and vary in color from a light brown, with darker stripes, to a chocolate brown. Annoy one of them and it will stand out like a dead twig, or start off at a looping gate. Jar or shake the limb lightly and many of them will drop and suspend themselves in mid air by a web which they spin as they fall.

It is while the canker worms are in this very young stage that the trees should be given a thorough spraying with Paris green or London purple at the rate of three ounces to forty gallons of water.

A quart or two of glucose or molasses, or a pound of freshly slaked lime (strained) added to each barrel of water, will help to retain the poison on the foliage. The lime will at the same time insure the leaves against injury from soluble arsenic.

Up to this time the canker worms have merely eaten a few holes in the leaves, but if they remain a week or two longer they will destroy every leaf on the trees if as common as they were last spring. They grow very fast and soon are from an inch and a quarter to an inch and a half long and as large around as a small twig. This is the time when people usually notice that something is eating the leaves of their orchard. Last spring letters came from all parts of the southern and central portions of the state, asking for help, but there was little that could be done as the calls came too late; the canker worms were mostly grown and were leaving the trees.

These facts regarding the canker worms demonstrate the importance of early spraying. Heavy rains may prevent complete success and a second spraying may occasionally be necessary.

The Old Time Singing School.

In the old colonial days when the great and the great-grandmothers were young the singing school was a well established institution, writes Mary E. Estes in a very accurate article telling exactly how "the old time concert" may be reproduced at a church entertainment in Ladies' Home Journal. It was usually held in the village school-house, the schoolmaster often figuring as the singing master. Thither at regular intervals through the long winter months tripped the grandmas with their escorts. Little did they imagine as they lifted up their sweet voices in unison with the strong tenors and basses that those same airs, even the very gowns they wore, would at some distant day be reproduced for the benefit of an appreciative audience. Yet it may be safely asserted that with the exception of the colonial tea the old folks' concert is the most popular of the old time entertainments.

The success of an undertaking of this sort depends largely upon the adaptability for her office of the person having the affair in hand. She must of necessity have an accurate conception of the manner in which these entertainments were conducted in our grandmothers' day. She must also become thoroughly imbued with the spirit of hat olden time.

A Waist Belt Fad.

The up to date Gotham girl is now collecting waist belts, not ordinary belts of leather, but costly jeweled affairs, to be worn with the short, round bodice of the evening gowns. Something entirely new is a waist belt formed of rosettes of yellow valenciennes lace mounted on white satin. In the center of each rosette an imitation turquoise nestles. Another waist belt is of black satin, over which a swarm of golden butterflies are embroidered.

A Painter's Test.

Stark Co., Ohio, 4-11, 90. Mr. O. W. Ingersoll: I received a copy of "Every man his own painter;" would say a friend of mine who is a painter used your Rubber paint 6 years ago, and it looks better than paint applied 3 or 4 years since, and he undoubtedly will use your paint altogether. Yours fraternally, H. H. SNYDER.

Worn-Out Lands

quickly restored to fertility by the use of fertilizers containing

A High Per Cent. of Potash.

Full description of how and why in our pamphlets.

They are sent free. It will cost you nothing to read them, and they will save you dollars. GERMAN KALI WORKS, 93 Nassau Street, New York.

Is a book containing illustrations, prices and descriptions of 30,000 articles in common use, a book that will show you at a glance if you are paying too much for the goods you are now buying,

WORTH ANYTHING TO YOU?

Is it worth the 15 CENTS in stamps required to pay postage or express charges on a copy?

THE BUYERS GUIDE AND CATALOGUE (issued every March and September) is the book we are talking about; you are not safe without a copy of the latest edition in the house.

MONTGOMERY WARD & CO.,

111 to 116 Michigan Ave., Chicago

ACME PULVERIZING HARROW, CLOD CRUSHER AND LEVELER,

Is adapted to all soils and all work for which a Harrow is needed. Flat crushing spurs pulverize lumps, level and smooth the ground, while at the same time curved coulters cultivate, lift and turn the entire surface of the soil. The backward slant of the coulters prevents tearing up rubbish, and reduces the draft. Made entirely of cast steel and wrought iron, and therefore practically indestructible, and therefore practically indestructible. CHEAPEST RIDING HARROW ON EARTH. Sells for about the same as an ordinary drag—\$85 and upwards. A. B.—I deliver free on board at distributing points. SENT ON TRIAL to responsible farmers, to be returned to AGENTS at my expense, if not satisfactory. I WANTED DUANE H. NASH, Sole Mfr., MILLINGTON, N. J., and 30 South Canal Street, CHICAGO. (Mention this paper.)

CARRIAGES, BUGGIES, HARNESS

and Bicycles, at Factory Prices. Work guaranteed and 20 to 40 per cent saved. Our goods received the highest awards at the World's Fair. Our 1895 Mammoth Illustrated Catalogue is free to all. It shows all the latest styles and improvements and reduced prices. It has 200 pages and is the largest and most complete catalogue ever issued. Send for it. It's free. Alliance Carriage Co., Cincinnati, Ohio. Write to-day.

TAKE GOOD CARE OF YOUR SHEEP.

Good care makes good sheep, good sheep makes good wool and good wool deserves a good market. Just here is where we can help you. We sell direct to manufacturers. Charge a very small commission. Make full and prompt returns. Secure highest market price.

WOOL

We have testimonials from hundreds of consignors. If you are interested, write us. Liberal advances made when desired. Sacks free to shippers. If you wish to know about our reliability, ask any responsible business house in Chicago or banks.

SILBERMAN BROTHERS, 208-214 Michigan St., CHICAGO, ILLS. Established 1866.

THE ARENA.

If it is not cheapness but ideas and worth you are seeking for your Home Circle reading, for your boys and girls, it is THE ARENA you want.

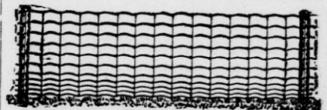
The Arena is the one and only magazine in America which gives what a university education should give,

and all facts and opinions on both sides of every question of human interest. Other periodicals give one side of some questions; The Arena is absolutely honest and gives all the Facts and Evidence, all opinions, all authorities, and lets every man form his own opinion. It is therefore the greatest educator in America. It is the vanguard of ideas and is essentially a home magazine.

The Arena from volume 1 to date is a university education.

It has attracted to its pages all the great wits, poets, reformers, thinkers, scientists, philosophers, story writers, and sociologists of our time. It publishes the most advanced thought on social science, politics, religion, theology, literature, criticism, fiction, art, labor, land, money, the woman's movement, suffrage, scientific investigation, psychology, psychic phenomena,—everything of interest in the thought of our day. It not sweeps the sea of the everyday world and brings golden thoughts to land. It is unique in American periodical literature. It opens a new world to thousands. It will do so for you. Send ten cents for sample copy with our prospectus for 1895. Price per annum, \$5.00. 50c a copy.

THE ARENA PUBLISHING CO., Boston, Mass.



A NEW TALKING MACHINE

is the latest invention, and it differs from the phonograph in this: instead of merely repeating what is said to it, this machine takes both sides of the fence question. It gives straight wire a fair show against coiled springs, and contraction must be provided for, and nothing but abundant elasticity will do it. Send for particulars.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

A Chance To Make Money.

I am out of debt, and thanks to the dish washer business for it. In the past five weeks I have made over \$500, and I am so thankful that I feel like telling everybody, so that they can be benefited by my experience. Anybody can sell dish washers because everybody wants one, especially when it can be got so cheap. I believe that in two years from now every family will have one. You can get full particulars by addressing the Iron City Dish Washer Co., E. E. Pittsburgh, Pa., and you can't help but make money in this business. I believe that I can clear over \$3,000 the coming year and I am not going to let such an opportunity pass without improvement. We can't expect to succeed without trying.

Mrs. B.