

THE GRANGE VISITOR

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

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WHOLE NO. 392.

THE TARIFF ON WOOL.

From the Standpoint of a Wool Grower.

HON. JOHN T. RICH.

This question has been discussed so much recently that it would seem that the interest in the subject must be exhausted, as every one would have by this time formed his own conclusions. There can be no doubt of the desirability of raising wool in a country where the per capita consumption is 9 $\frac{7}{10}$ pounds annually, while Great Britain, the next largest consuming nation in the world, is only 6 $\frac{9}{10}$ pounds. While the American people, or, more properly speaking, the people of the United States, are only one-sixteenth of the population of the world, they consume nearly one-third of the wool consumed. It would then seem to require no argument to prove that in a country of such a character as our own, with its adaptability to wool raising equally with other agricultural products, that wool should continue to be one of our important products. It adds fertility to the soil, diversifies our agriculture, furnishes cheap and wholesome meat for our people, increases our wealth and makes us more prosperous in peace, and stronger and more independent in time of war.

With this much conceded, and the fact that wool has always been on the protected list, though not always adequately protected, the question arises, has the business been more profitable than other branches of agriculture? This question is answered in the negative by the fact that for the last seven years, including 1891, there has been a falling off in the number of sheep in the United States, while the population has increased, and an increased amount of almost all other products and an increased consumption of everything, including wool.

During the year 1891 there was an increase in the number of sheep of 1,500,000. This increase of the number of sheep occurred the first year after the tariff act of 1890 had become a law. It is urged as against this law that wool was lower in 1891 than in 1890, which is true, not only in the United States but throughout the world. As the fall in price was much greater in other portions of the world than here, it is fair to presume the price would have been lower had it not been for the protection of the law of 1890. In support of this statement I quote from the address of the Wool Consumers' Association to Congress asking for free wool: "The almost universal fall in prices was caused in a very small degree, if at all, by the tariff act of 1890. The tremendous losses in the Argentine Republic and elsewhere, the failure of the Barings, the distrust caused by silver legislation, the low price of cotton in the South on account of an enormous crop, the failure of crops in the North and West prior to 1891, causing dull trade and reduced consumption, are the principal causes that brought distress and falling prices."

In addition to the causes given above was the enormous importations of wool and woolsens in anticipation of the passage of the law of 1890; also the especially mild weather for the past two winters which materially reduced the demand for heavy woolsens, and last but not least the enormous increase in the wool production of the world and especially in Australia.

The London Economist of Oct. 3, 1891, in explaining the cause for the lower prices for wool says:

"In Australia in 1870 there were 40,000,000 sheep; in 1886, 60,000,000, and in 1890 there was as many as 90,000,000 sheep, and at an average of 5 $\frac{1}{2}$ lbs. of wool per sheep the increase can be at once understood. Including New Zealand and Tasmania, our Australian colonies now possess sheep to the number of 110,000,000, and there alone is a supply equal to 550,000,000 lbs. of wool per annum, after allowing for consumption in these colonies. * * From Australia and Cape of Good Hope there has in eight months 52,200,000 lbs. more of the staple reached us than was the case last year; and the prospects are that these augmented supplies will be continued. More wool has also reached us from India and other countries." There is no claim that it costs as much to raise wool in any of the above-mentioned countries as in the United States, nor is it claimed that the limit of wool production has been or is likely to be reached in the near future. With these stubborn facts staring us in the face it is not easy to see how the American wool grower can be benefited by free wool, or, in fact, how he can compete on terms of equality as to the American market with such conditions at all.

The price of American wool has been governed by the price of wool in London. This is conclusively shown by a comparison made of the price of wool in London and New York for the twenty-five years preceding 1891, as compiled by Mr. Charles Avery of the firm of Mayner & Avery of New York and Boston and published in the National Wool Manufacturers' bulletin of December, 1891. It shows that Ohio washed wool has been higher than its nearest corresponding grade of Australian wool (Port Philip fleece) but rarely by the full amount of the duty. This is however accounted for by the fact of the greater uniformity of the foreign wool and the difference in the method of doing it up. The demand for woolen goods, both at home and abroad, is the chief element in causing the fluctuation in price of wool, both domestic and foreign. It is conclusively shown that the falling off in the price of wool has not been confined to the United States, by the fact that in 1866 a bale of Australian wool was worth on an average \$122 per bale, and in 1889 only \$67. There is a duty of 11 cents per pound on unwashed Merino wool under the present law, but only the best wool which can be got through our custom houses is imported. The unwashed Merino wools imported are almost invariably skirted; all the wool that grows on legs and faces, and a portion of the bellies, is left out of the fleece; less twine or no twine is used in doing up the fleeces; and only that which is free from sand, hayseed, etc., and of uniform quality is imported. So that a given number of pounds of this kind of wool displaces considerable more than the same number of pounds of domestic wool and consequently reduces the amount of protection to American grown wool. If, as has been shown, wool growing has not been more profitable than other agricultural industries, and if free wool reduces the price one-half the duty from the present low price, it is evident that wool growing cannot be carried on in this country except under peculiar circumstances, like the raising of mutton sheep to some extent in connection with other farm operations. Even the wool raising on the ranches will be largely or entirely abandoned. To show that this statement is not mere assumption, I

quote from a letter from Mr. A. E. Shepherd of Texas, who appeared before the committee of ways and means in January, 1889, and asked for additional protection on wool and then stated that he owned 18,000 sheep and 46,000 acres of land, and leased 41,000 acres of the state at four cents per acre. He stated among other things that it took five acres of land to keep one sheep. The letter, quoted below is in reply to one asking if he would attend a meeting of the National Wool Growers' association if one was called. The letter is as follows:

"AUSTIN, Tex., Mar. 13, 1892.

John T. Rich, Esq., Elba, Mich.:

Your favor of the 7th at hand and noted and in reply will say that I have sold my entire stock of sheep in anticipation of wool being put on the free list, which I am almost sure will be done, and if it is I do not want to raise sheep in Texas. * * * I keep my ranch but am running cattle upon it instead of sheep. * * *

This letter is from a shrewd business man and the action is taken from a business standpoint, based on the experience of many years in wool raising in Texas. There can be no doubt that low as wool now is it will be lower if placed on the free list. While we raise but little more than one-half the wool consumed with free wool we raise much less. The farmer who raises no wool is only a little less interested in this matter than the one who does, for, like the gentleman from Texas mentioned above, if they do not use their land for sheep they will for cattle or something else which tends to depress other industries already overcrowded. To say that the remedy is in raising mutton sheep is not true. While a large number of mutton sheep can be profitably kept in this country it is like any other business, it can be easily overdone. Then the staple clothing wool of the world is, and always must be, Merino wool of some grade, and under present conditions this cannot be successfully raised in this country in competition with countries where climate is more favorable, and cost of land and labor are so much lower than here. The claim that wool is raw material and should therefore come free, is untenable because the wool is the farmer's finished product and is almost entirely the result of labor. If any American product is entitled to protection, then wool is; first, because it is an industry that in all its branches and in whatever way considered is beneficial to the country; then it is produced by a very large number of our citizens who even now receive only a meager return for their labor; and last but not least the wool grower is brought into competition with the lowest priced labor in the world in its production under more favorable conditions for this industry than do or can exist here. The so-called Springer free wool bill has just passed the House of Representatives and it is well for farmers to consider carefully its effect on their industry. It provides that all wools, hair of the camel, goat alpaca, and other like animals, and all wool and hair on the skin, all noils top waste, ring waste, yarn waste, and waste, burr waste, rags and flocks, including all waste in rags composed wholly of wool, shall be admitted free of duty after January 1, 1893. The duty on manufactured woolsens is reduced so as to leave them with the same amount of protection with free wool they now have with wool protected, so that this section hits

only the farmer, and every one of the article's mentioned come in direct competition with the farmer's wool while the protection to the manufacturer remains the same. It is proper to say in this connection that the National Association of Wool Manufacturers do not approve of this measure as they think that in the end it will injure both manufacturer and grower.

But there is another provision in this bill which is worthy of consideration. Section 4 provides that wools and hair of the camel, goat, alpaca, or other like animals, in the form of roping, roving, or tops, and all wool and hair which have been advanced in any manner or by any process of manufacture beyond the washed or scoured condition, and likewise all mungo, shoddies, garnetted or carded waste, or other waste product, any of which is composed wholly or in part of wool and which has been improved or advanced beyond its original condition as waste by the use of machinery or the application of labor or both, shall be subject to a duty of thirty per centum ad valorem.

While there is no protection provided for the farmer, the manufacturer of shoddy, mungo and waste is put on the same plane as the manufacturer, that is, both are allowed free raw material and are protected on their product. Under the present law there is a duty of ten cents per pound on shoddy, mungo and waste articles, which is and was intended to be prohibitory because it not only displaces American wool but is an imposition on the people. On rags, mungo and flocks the present duty is ten cents per pound, which is also practically prohibitory.

The provisions of the free wool bill seem the more strange when it is generally considered that it is against public policy to encourage the use of shoddy in any form. Yet here is actual encouragement to import the worn-out rags from European countries which must of necessity include those gathered from the gutters, slums and pest-houses, to be manufactured into clothing for the American people, while the grower of good, healthy wool is to be left to the free competition, not only of wool growers in other portions of the world but to that of the rags, mungo and waste of the whole world. While each pound of this stuff displaces more than a pound of American fleece wool it encourages the basest fraud on the American people. As ordinary clothing worn by the mass of the people is of as good quality and as cheap as is sold elsewhere in the world, it is difficult to see who is to be benefited by free wool. Certainly not the American wool grower.

Elba, Mich.

METEOROLOGY AND CROPS.

A comparison of the meteorological peculiarities of 1890 and 1891 shows that the condition of corn on the first of July was practically identical in the two years. It is always good at that date unless cold and wet spring weather has interfered with planting, germination, and early growth. Though maize can endure more heat and drouth than most other agricultural plants, the danger of long-continued absence of rainfall, especially in July and August, the season of development for this crop, is the greatest to which it is exposed. Note the sudden decline of condition in 1890, due mainly to drouth, as indicated by the report of the first of August. The August weather intensified the injury, while the favorable influences of September at least prevented further

decline and led to slightly more hopeful views in the formulation of the local estimates of October. The record of 1891, in sharp contrast to that of 1890, commencing with quite moderate evidence of early growth, showed that the crop had endured the ordeal of deficient moisture and the fervent suns of July with a lowering of only two points, after which a steady improvement continued to October, and later through the autumn season so important in drying the grain and perfecting its quality. This has advanced a crop of medium status, in its germination and stalk growth, to a production above the average, or 27 bushels per acre, not the largest yield known, but one not often exceeded for the entire breadth. * * *

A noticeable and unusual peculiarity of the year is the almost universal occurrence of medium or large production. Ordinarily, a large of one crop is offset by a diminished product of another. The summer crops may be generally good, and the winter grains and grasses seriously injured by the severity of the winter.—U. S. Department Agriculture.

"THE RIGHT TO VOTE."

We have heard lately, in connection with various election contests under the new ballot laws, a good deal about the right to vote. I think the average citizen everywhere has a right to the franchise, in relation to the franchise, than by anything else pertaining to it. And yet the truth is quite different from the idea which generally prevails in respect to the ballot. There is really no primitive or natural right whatever about voting. The citizen's inalienable rights under the Declaration of Independence are only life, liberty and pursuit of happiness. But we can have all these without voting, or without being voted for. There is not a community on the planet that confers the voting power, as it confers protection to life and property. The latter it confers as a thing everyone may claim, while the right to vote is given, when given most bountifully, only to a moiety of the people. Women, who number more than one-half the population, are excluded, as are convicts, idiots, the insane, minors, and foreigners who have not taken out naturalization papers and have not been residents for a stipulated period.

The right to vote is therefore not a right in the first instance, but a privilege, and a privilege conferred by the State. We boast of universal suffrage; but, where suffrage is freest, very much less than one-half the population vote. In some states a poll tax is required; in some an educational qualification is imposed; and in Rhode Island, until very recently, a property qualification was exacted. The body of voters, then, is a selected class in whom a certain power is deposited which is to be exercised on behalf of the State. The vote is not the voter's real chose, and it may be taken away from him when the State sees fit. It is taken away in cases of convicted crime; and, improbable as it is that our widest distributed suffrage will be eventually reduced, it is still possible that it may be, and desirable in the minds of a large number, that it shall be, some time, by at least a rigid educational test. When the citizen understands that he is merely exercising a trust and not enjoying a commodity by voting, his relation to the State will be seen in a clearer light.—Joel Benton, in the Social Economist.

ROOTS VS. SILAGE FOR FATTENING LAMBS.

A bulletin just issued by the College gives the results of an experiment recently conducted by the agricultural department. The primary object of the experiment was to test the relative value of roots and silage for fattening lambs. Incidentally other facts were developed which are of great economic importance to the farmer engaged in the business of feeding lambs for mutton. Roots and silage were chosen as two foods much alike in character and in their influence on the nutritive functions of the animal.

Sixteen grade Shropshire lambs, purchased of farmers in the vicinity, were fed for a period of twelve weeks. Eight lambs were fed for six weeks on roots and hay, as much as they would eat, and one pound of grain daily, consisting of oats and bran in the proportion of two pounds oats to one pound bran. The remaining eight lambs were fed six weeks on silage and hay, as much as they would eat, and the same grain ration as the former. For the remaining six weeks the foods were reversed, division I receiving silage, hay and grain, and division II receiving roots, hay and grain. The average amount of food consumed daily by each lamb with the root ration was 1 pound grain, 1 pound hay, and 4.7 pounds roots. The daily ration with silage was 1 pound grain, .8 of 1 pound hay, and 4.4 pounds silage.

The average gain of each lamb on roots for the entire period of twelve weeks was 3 pounds per week; on silage the gain was 2½ pounds per week.

The following financial statement may be of interest:

Roots.	
8 lambs (87 pounds) @ 4½ c.	\$31 32
448 lb oats @ 32 c.	4 48
224 lb bran @ \$15	1 68
672 lb hay @ \$7.50	2 52
3,172 lb roots at \$2.50	3 97
Total cost.	\$43 97
By 8 lambs (123 lb) @ 5½ c.	\$56 58
Profit on 8 lambs	\$12 61
" " 1 lamb	1 57

Silage.	
8 lambs (87 pounds) @ 4½ c.	\$31 32
448 lb oats @ 32 c.	4 48
224 lb bran @ \$15	1 68
536 lb hay @ \$7.50	2 52
3,014 lb silage @ \$2.50	3 77
Total cost.	\$43 26
By 8 lambs (117 lb) @ 5½ c.	\$53 82
Profit on 8 lambs	\$10 56
" " 1 lamb	1 32

Difference in favor of roots on each lamb.	\$0 25
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COST OF FOODS USED IN EXPERIMENT.

Oats per bushel	\$0 32
Bran per ton	15 00
Hay " "	7 50
Silage " "	2 50
Roots " "	2 50

In arranging the financial statement the average gains of 3 pounds per week on roots and 2.5 pounds on silage are taken as a basis on which to compute the weight of animal at close of experiment.

The conclusions drawn from this experiment are summed up in the following:

1. This experiment indicates the superiority of roots over silage for fattening lambs.
2. Either roots or silage may enter largely into the fattening ration and allowing a reasonable valuation on each, may be fed at a profit.
3. Lambs may be successfully fattened without the use of a heavy grain ration.
4. Fattening lambs under existing conditions in Michigan is a profitable enterprise and is worthy the most careful thought and study of all engaged in mixed farming.
5. It will be observed that the ration containing the higher percent of digestible albuminoids, in other words the ration with the narrower nutritive ratio, produced the best results.

SPRING CARE OF FARM TEAMS.

E. A. BURNETT.

Perhaps few men situated on a farm are able to give to the farm teams the amount of care and the personal attention necessary to the best work of the animals; but

there is no doubt of the fact that the additional care and attention always more than repays the owner in the additional work which the animal is capable of performing.

Particularly as the spring work approaches is this care necessary. Why? At this time the team should be in good flesh and spirits. They should be so hardened to work by the activity of the winter that they are capable of doing a good day's work without special fatigue. The hauling of manure, wood, necessary movement of fences and general work while it greatly lessens the pressure in spring, also helps to harden the teams for the severe exertions of putting in the spring crops.

Having done this, with good careful feeding, good grooming, well fitted harness and careful driving, much more comfort might be secured for the farm team and even more work accomplished.

There seems to be a prevalent idea that the time to feed a horse heavily is when he is at rest; to get him ready for a hard week's work which will follow when the mud subsides or for a hard drive. This over feeding while at rest often causes paralysis of the quarters (Azoturia) and other diseases, if the animal is put to severe work at first. It may be given as a safe rule that two-thirds of a full grain feed when at hard work is sufficient for the horse when idle for several days. During the severe work of the spring however, the farm team should have an abundance of good food given with great regularity. Because the farmer will not return from town till 2 p. m. is no reason why the team should not be fed at twelve.

While oats is the standard feed for a horse, a bran mash once a week, a handful of oil meal in the feed, an ear of corn, a bite of grass help to keep the system clean and give relish to the feed. If only slow work is to be done, grain, consisting of a portion corn, barley or rye ground with oats is often cheaper and equally valuable for the horse.

Few farmers appreciate how much additional exertion a team can perform if they are thorough each day. The rubbing cleans and toughens the skin, it prevents chafing, and rests and strengthens the muscles. Scratches are often caused by improper grooming and galling is not infrequently the result of careless grooming. A well fitted harness is comfort to any horse and would be a luxury to many an honest farm horse who works and chafes under a galling collar or back-band in the hot spring days and is jerked about with a harsh bit by some brutal driver, too ignorant to know the cause of the horses discomfort or not humane enough to remove the cause.

The collar which will fit a horse as he goes into work soft and fleshy in the spring will need to be drawn tighter as the horse hardens into his work. The neck which is tender from rest needs to be aired and rubbed clean from dirt and sweat and the collar cleaned from dirt several times during the half day. It is but a trifle and can be done when the horse needs rest, but it may prevent a severe gall or collar boil which either lays the animal off from work or works him at a great disadvantage.

For the majority of farm work the harness without back band or crupper is coolest and consequently best.

There is a wonderful difference in the amount of work which different men will perform with a team and keep them in equal condition. The driver should give the team every advantage, working them at their own pace from morning till night, seldom stopping them for rest, never crowding them beyond their natural gait. He should always be interested in their welfare and comfort. Teams as well as men are capable of greater exertion on some days than on others and the good teamster should be capable of judging on this point in order to secure the most work from the team at the least expense.

In a government like ours, we must look to the intelligence of the masses for the safety and permanence of our free institutions.—George Washington.

THE BROOD MARE AND HER FOAL.

E. A. A. GRANGE.

At this season of the year the care and management of the mare and foal becomes a matter of much importance to those engaged in breeding horses as this is about the usual season for them to drop their offspring. Singularly enough, in the writer's mind as many if not more mares and foals are killed through kindness than is generally supposed, so much so, that a column of "Dont's" would appear appropriate in this connection.

Don't keep your mare housed, under the impression that she can not endure plenty of reasonable exercise.

Don't starve her under the impression that she will get too fat; on the other hand keep her in good fair condition.

Don't give her anything to drink or eat but the purest water, and good food of a mixed nature.

Don't exercise her on short hilly ground.

Don't interfere with her for an hour or two after she has dropped the foal, unless something is wrong.

Don't excite her in any way that can reasonably be avoided.

Don't allow the mare to be exposed to extremes of temperature or cold rains for at least two weeks after foaling and even then, both mare and foal will usually do best if cared for by housing at such times.

Don't leave the foal to take its own chances in the world till you are certain that the natural apertures for the passage of excreta, etc., are open.

Don't let a weak legged colt run too much, but see that it gets a reasonable amount of exercise.

Don't let the young creature graze at a straw stack the first winter, by way of hardening it for the vicissitudes of a cold climate.

Don't leave the animal untrained, or rather uneducated, until it is three or four years old.

In our opinion the time to begin to educate the horse is when it is about one year old; but at this age it should be of the most gentle nature.

FRUIT GROWING FOR FAMILY USE.

A. G. GULLEY.

Fruit growing for profit by the general farmer will as a rule not prove satisfactory. The methods of work are different and the operations interfere with the regular farm operations. There is however a branch of the work that can not be too heartily recommended, that is, growing for family use. Here the farmer has no competition, or need have none. He does not have to worry about markets, indeed he will be surprised at the extent of his home demand when the supply is not limited, and by this is meant not one or two kinds, but such an assortment that he shall have a supply from the time strawberries begin until they shall come again. Perhaps some one will say, "I can buy what I need cheaper than I can grow it." Admit it to be true; a full supply is not always to be obtained, indeed, can hardly ever be obtained outside of large cities, and what is most important will rarely be purchased. By a supply is not meant a quart or two every week or even every day, but for a family of half a dozen from four to ten quarts each day for at least three weeks of strawberries, probably half as much of raspberries, to be varied and followed with cherries, black berries, grapes and pears, and filling out the season with apples. In the family of the writer, which never exceeded six persons, while at home handling his own fruit, was used over five bushels of fruit each year during the strawberry season, over half in the fresh state; and at about the same rate of each of the other kinds grown. But for the past two seasons while at the College, where all the berries wanted could be had by buying, it was noticed that a much less quantity was used. In other words the farmer will be much more free in the use of fruits when it does not take actual cash every time it is used. Now any farmer can have a supply and at the end of the year

hardly feel that he has put any money in it and the small amount invested will pay a large return.

As to planting do not put in beds but in long rows so a large share of the cultivation can be done with a horse, and if in one of his largest fields is convenient to the house so much the better, as he will then go there more often and it will not be forgotten. Two rows of strawberries, about 15 rods long, of any of the standard sorts would fully supply a family of ten persons. About the same of raspberries, one row each of red and black, one of currants and gooseberries, two of blackberries and one row of grapes well trellised, of old standard sorts. To this add ten or a dozen pears, old well tried kinds, and perhaps half a dozen cherries, mostly sour, and with the usual family apple orchard a good supply will be assured. All these can be grown almost anywhere in lower Michigan. All the fruit mentioned aside from the apples would take less than three-fourths of an acre of ground, and when in bearing would form the most valuable part of the farm. See to it that the apple orchard itself has a full succession of varieties adapted to family use, as it adds to the variety. Fruit can be had about the year through from apples alone, and of good kinds.

The farmer has no excuse for not growing plenty of fruit for family use. There is no difficulty in growing any of the kinds mentioned and the enjoyment and satisfaction of having the fruits would well repay the few hours necessary to give to its growth and add very much to the variety of the farmer's table.

THE FARMER'S VEGETABLE GARDEN.

H. P. GLADDEN.

As we drive along a country road what do we usually find as a sample of a farmer's garden? Some farms will be passed where no attempt at a garden has been made; but usually a small plot of ground near the house will be seen, more than half of which is occupied with potatoes. A small space given to beans, peas, cabbages and tomatoes comprises the rest of the garden; the whole looking in a very much neglected condition. This is not as it should be. Every farmer should have a good garden. There are many vegetables gratifying to the taste and conducive to health which are not grown in the ordinary garden. Farmers often say that they can buy vegetables cheaper than they can grow them at home. As long as they think this way, so long must their families go without vegetables for the table. If a farmer will take a half acre of good ground, and give it the necessary care and attention, keeping account of all expense of working, and also of the products received at fair prices, he will find that no piece of ground of equal size on the farm has paid half so well as the garden spot, besides the enjoyment he will get from having his table abundantly supplied, and the saving of doctor's bills. It is true that the garden needs attention just at the time when the spring work is pressing. A little care given to the location and arrangement of the garden may make a great saving in labor. One mistake often made is the attempt to combine the vegetable garden with the orchard and small fruits. Good vegetables cannot be grown in the shade, and it requires more labor to tend a garden among trees than if it were by itself.

The soil best for a garden is warm sandy loam, though almost any soil can be made to grow good vegetables. A level surface or a gentle slope to the south or southwest is preferable. The same spot well manured will last for many years. If you think the ground is wearing out, it is well to seed to clover and let it remain for two years, then plow under the clover and the soil will be again ready for cropping.

The garden should be laid out so that a large part of the work can be done with the horse and cultivator. Half an acre is about the amount of ground that should be given to the garden. This is large enough for vegetables and strawberries. The vegetables should be planted in long rows and not in square beds. A liberal application of good barnyard manure

should be given. Ashes are also the best kind of a fertilizer, but they should not be applied in direct contact with the seed.

Peas are perhaps the first crop to be planted. They should be sown as soon as the ground can be worked. For early use sow some of the first early sorts mentioned in the seed catalogues. The wrinkled varieties require that the ground be warmer than for the early smooth sorts. As second early sow McLean's Little Gem, Midsummer, Advance, etc. As later varieties, Stratagem, Yorkshire and Champion may be mentioned. Green peas may be had throughout the season by sowing in succession. A convenient and cheap trellis for a small garden is the woven wire netting that may be purchased at most hardware stores. The onion is another vegetable that should be placed in the ground early. Sets will give green onions quickest. What are known as multiplier onions are excellent for family use. Also sow some of the small radishes for early use, Scarlet Globe, Blood Turnip or French Forcing are good varieties.

POISONING BEES BY SPRAYING WITH THE ARSENITES.

A. J. COOK.

At the last meeting of the American Association of Bee Keepers at Albany, the question of spraying trees with a watery mixture of London purple or Paris green while in bloom was hotly discussed. The state entomologist of New York, one of our best authorities in general matters of economic and general entomology, expressed a doubt of any injury to bees by such practice. He said that the consensus of opinion among the entomologists at a recent meeting at Washington was to the effect that bees were not injured by spraying, no matter when done. He added that though he had always recommended previously that spraying should never be done during the time of blossoming, yet he had about made up his mind to omit such recommendation in future. This caused a tremendous buzz of excitement and called forth such a mass of testimony against this view that the professor changed his position and said that he should continue to recommend as he had done in the past, that no one should spray their orchards with London purple or Paris green while the trees were yet in blossom.

That bees have not been more poisoned is easily explained. Usually the trees are not sprayed while in bloom, in which case there would of course be no harm to bees, as the nectar would not be poisoned. Again, in the rare cases of spraying orchards in blossom, there would often be no harm to bees, as the weather is very apt to be so cool that bees do not fly all the time and the flowers do not secrete any nectar, and so no bees would be poisoned. We thus see that negative testimony is to be taken with much caution.

On the other hand, we have several cases on record, both in Michigan and adjacent states, where large orchards were sprayed while the trees were in bloom; where the bees were actually seen swarming on the blossoms, and where there was serious loss of both the mature bees and also of the brood yet in the cells. From all our past experience we have no solution of such mortality except as a result of poisoning by the bees sipping the poisoned nectar from the open blossoms. We know that insects are very susceptible to poison from the arsenites, and so we have the matter easily explained. Last summer we sprayed twigs with sweetened water in which London purple was mixed in the proper proportion for spraying and placed the same in cages in which bees were placed. In every case the bees quickly died, though not so quickly but that they might have flown some distance to their hives and have deposited the poisoned liquid in their combs. This shows why the brood is poisoned. Others treated in precisely the same way except that the sweetened water was not poisoned were not in the least injured. This makes the above supposition more than a theory. It positively proves that what is done in spraying will kill bees, and easily explains why bees that collect the nectar from sprayed blossoms die. The conclusion is obvious: We

PATRONS' PAINT WORKS

MANUFACTURER OF
INGERSOLL'S LIQUID RUBBER PAINT.

Ten Thousand P. of H. and Farmers testify they are Best and Cheapest. WRITE US AND SAVE MONEY.

Cheap, Indestructible Paints for
BARN AND OUTBUILDINGS.

OFFICE: 243 Plymouth St., Brooklyn, N. Y.

Beautiful Sample Color Cards and Book
of Instruction—FREE.

We Guarantee Satisfaction.

should never spray our orchards till the blossoms all fall off.

Spraying against the codling moth is very profitable. No farmer can afford to neglect it. One pound of London purple and three or four pounds of thoroughly slaked lime should be mixed in two hundred gallons of water. The lime prevents injury to the foliage. Spray once as soon as all blossoms have fallen. Spray again in two weeks in case of any heavy rains. To spray while the trees are in bloom is not only fatal to the bees, but it is too early to work the best results in fighting the codling moth. The eggs are not laid till about the time the blossoms fall, and do not hatch till some days after. Hence we see that early spraying, especially in case of heavy rains, would be of no use. Thus it is evident that both to kill the "apple worm" and to protect the bees, spraying should always be deferred till the blossoms have fallen from such late blooming trees as the Jonathan and Northern Spy. There should be a law in every state making it a serious misdemeanor to spray while the trees are in bloom. Such a law would be an excellent educator.

CARING FOR THE BEES.

J. H. LARRABEE.

How are the bees this spring? Did you wait until the first natural pollen appeared before taking them from the cellar, or did you again allow your anxiety for their condition in that cold, damp place to get the better of your judgment?

For those colonies uninterred in the cellar some sort of protection from the cold blasts of April and early May generally well repays for the trouble. At this season as much as any time is manifested the excellence of the chaff packed or double-walled hive.

Please do not forget that previous to fruit bloom the bees gather but little honey, and that at this season they consume large quantities of food in rearing young bees and in renewing the rapidly wasting energies of those old bees that have remained so long dormant. A syrup made of good sugar in the proportion of ten pounds to five pounds of water is a cheap and excellent feed at this season. It should be placed inside the hives either by pouring into an empty comb and placing in the hive at the side of the cluster or by means of an inverted can. In the latter case the top of the can should be covered with about two thicknesses of muslin tied on and inserted over a hole in the quilt or cover in such a manner as to prevent the escape of heat. A colony having no honey at this date should be supplied in the above manner with eight or ten pounds of syrup to provide for the increasing amount of brood until the blooming of white clover.

STOCK ITEMS.

A man in Illinois has a remedy for "lumpy jaw" warranted to cure. If he succeeds he will knock out the Illinois live stock sanitary commission.

The D. V. M., who succeeds in finding a preventive for goitre in lambs will be considered worthy of any title he may choose to write either after or before his name by the flock masters of the country.

An enterprising member of Congress from Oregon has introduced a bill into Congress, directing our Minister to Turkey, to enter into negotiations for the purchase of one or two hundred Angora goats with a view to introduce them into this country. Perhaps this progressive representative does not know that Angora goats were introduced into this country more than thirty years ago, and there are large flocks kept in California. Whether they have been found profitable or not we are not informed.

CONCERNING THE VISITOR.

Patrons of Michigan:

The time having expired with Bro. Glidden as editor, and A. C. Martin as publisher, the executive committee had under consideration several propositions from various persons and places, and, after long and deliberate consultation, accepted the proposition of Kenyon L. Butterfield of Lansing, as editor and manager, and Robert Smith & Co., publishers, Lansing, Michigan. Now, brothers and sisters, this may be a serious move, but we hope it is for the better. We have been blessed in the past with able, earnest and self-sacrificing brothers in the editorial chair. We will ever hold them in grateful remembrance for their untiring energy to awaken the dormant condition of the toiling people of our country. Now, Patrons, you all have a duty to perform. Each and every one of you have an interest in the Visitor and you will not do your duty unless you subscribe for it and then see to it that all your neighbors are likewise enrolled on the list. Call the attention of manufacturers to the importance of advertising their wares, and stock raisers should be patrons as the paper falls into the hands of advanced farmers. Let the secretary of each subordinate grange be an agent for the Visitor and he or she, as the case may be, make it their duty at every meeting to call the attention of the members to the importance of maintaining our journal, and whenever and wherever you meet a Patron or farmer be on the alert to extend the Visitor, the very best paper in our land. Brother Butterfield is a young man of ability, a graduate of the Agricultural college, and from his appearance and reputation received from the professors of the college, the Visitor will not grow less. Yours fraternally,

THOS. MARR.

THE HON. J. J. WOODMAN.

The Hon. J. J. Woodman of Paw Paw arrived in the city yesterday afternoon and registered at the Morton. "I am here to confer with Mr. Weston and Mr. Garfield," said he, "regarding my appointment as superintendent of Michigan's agricultural exhibit at the world's fair. No, I am not master of the State grange now, but I have been master of both the State and National granges. I held each position six years." Mr. Woodman, in speaking of his public services, is always modest, and having been a prominent figure is content to let others tell of his works rather than seem to exalt his own horn. His choice as superintendent of the agricultural department of Michigan's agricultural exhibit in the world's fair cannot fail to bring excellent results. Mr. Woodman has experience in the work he is called to do, which will prove very valuable. He was superintendent of the agricultural exhibit of Michigan at the Centennial exposition in Philadelphia, and his report to the authorities at Washington is considered one of the most valuable made by any superintendent at the Centennial. In 1878 Mr. Woodman was one of the American commissioners to the Paris exposition, and there he also gained experience which must prove valuable in his present office.—Grand Rapids Democrat, April 12.

THE EDUCATIONAL EXHIBIT AT THE WORLD'S FAIR.

The educational exhibit will be organized both by States and by grades. Each State will occupy a definite area, which will be assigned with reference to the elements which the several States will have to represent, as nearly as that can be ascertained. These areas will be side by side in parallel subdivisions extending north and south. The arrangement of the elements in the several States will be expected to conform to a general plan, presenting the several grades in consecutive arrangement extending east and west. The studious observer may follow the grades, from the most elementary to the most advanced in any State; or crossing the areas he may trace the similarities or variations in any chosen grade. The parochial schools will have a definite place in the scheme, conformably to the same system.

Each State exhibit will include:

1. A presentation of its public school system.
2. Its academies, normal schools, colleges and universities.
3. Its special, technical and professional schools; except in cases where a specialty in education can be better illustrated by a collective exhibit, independent of State lines. Thus there will be a single collective exhibit, showing library organization and management; one of commercial schools; of manual training schools; of trade schools, etc. This method should probably be adopted, with exhibits of schools for the blind, the deaf, etc. The ruling idea will be to bring into the closest local relationship those elements which have the closest educational affinities, thus to offer the best opportunities for interesting comparison and critical observation. In some cases these benefits may be secured better by observing State lines; in others, by obliterating them.—Selim H. Peabody in the Educational Exhibit.

FROM THE REPORTS.

Good work is indicated by the reports coming in for the quarter closed March 31. This is especially true in certain localities.

Foremost in making additions to the order, thus far reported, have been Hesperia No. 495, with its list of 58, and Olive Centre with its 40.

Other strong reports are in from South Boston No. 175; Ronald, No. 192; and No. 270; Bradley, No. 669; Essex, No. 439, and Ashland, No. 545, and places several more granges on our list of those with a membership of more than 100. Let us make it a long one this year!

The youngest Pomona responds heartily from Kalkaska county. The newest subordinate is Ruby of St. Clair county, organized April 1st by Bro. A. W. Campbell. Judging from the strong array of charter members, it is a good day for the making of granges.

JENNIE BUELL,

Secretary State Grange.
April 11, 1892.

OBITUARY.

DIED.—At his home in Ravenna, Muskegon county, February 29, 1892, Bro. Daniel G. Brown, aged 72 years, a respected member of Ravenna Grange. Bro. Brown having been a member of Ravenna grange for a number of years, was found to be deeply interested in Grange work generally, as well as the success and welfare of his own grange. He held office almost continually during his connection with the grange, and was generally found at his post, ready to do his whole duty. As a Grange we realize that in the death of Bro. Brown we have lost an efficient member, the community a respected citizen, and the family a kind, loving husband and father; therefore

Resolved, That these resolutions be made a part of the grange record, a copy in the Ravenna Times also in the GRANGE VISITOR for publication, and a copy given to the bereaved family.

M. B. AVERILL,
H. C. TUTTLE,
L. A. HULL,
Committee.

Yours fraternally,

THOS. D. SMITH,
Secretary.

RAVENNA, Mich., April 11, 1892.

If the people are the government why do the politicians want to do all the governing and get all the profits?

An old-fashioned chest protector—a padlock.—Boston Courier.

\$45 SEWING MACHINE FOR \$15

Including one Year's Subscription to this Paper



We have made such arrangements as enable us to offer the Chicago

SINGER SEWING MACHINES

at the above low rates. This machine is made after the latest models of the Singer machines, and is perfect fac simile in shape, ornamentation and appearance. All the parts are made to gauge exactly the same as the Singer, and are constructed of precisely the same materials. The utmost care is exercised in the selection of the metals used, and only the very best quality is purchased. Each machine is thoroughly well made and is fitted with the utmost nicety and exactness, and no machine is permitted by the inspector to go out of the shop until it has been fully tested and proved to do perfect work, and to run lightly and without noise.

The Chicago Singer Machine has a very important improvement in a Loose Balance Wheel, so constructed as to permit winding bobbins without removing the work from the machine.

EACH MACHINE IS FURNISHED WITH THE FOLLOWING ATTACHMENTS:

HEMMERS, RUFFLER, TUCKER, PACKAGE OF NEEDLES, CHECK SPRING, THROAT PLATE, WRENCH, THREAD CUTTER, BINDER, BOBBINS, SCREW DRIVER, GAUGE, GAUGE SCREW, OIL-CAN, filled with Oil, and INSTRUCTION BOOK.

The driving wheel on this machine is admitted to be the simplest, easiest running and most convenient of any. The machine is self-threading, made of the best material, with the wearing parts hardened, and is finished in a superior style. It has venerated cover, drop-leaf table, 4 end drawers, and center swing drawer. The manufacturers warrant every machine for 5 years.

They say: "Any machine not satisfactory to a subscriber, we will allow returned and will refund the money."

Price including one year's subscription, \$15. Sent by freight, receiver to pay charges. Give name of freight station if different from post-office address.

Address, with the money.

GRANGE VISITOR, LANSING, MICH.



SPRAY YOUR FRUIT TREES & VINES

Wormy Fruit and Leaf Blight of Apples, Pears, Cherries, EXCELSIOR SPRAYING GRAPE and Potato Rot, Plum Curculia prevented by using. PERFECT FRUIT ALWAYS SELLS AT GOOD PRICES. Catalogue showing all injurious insects to Fruits mailed free. Large stock of Fruit Trees, Vines, and Berry Plants at Bottom Prices. Address W.M. STALL, Quincy, Ill.

NOW AND THEN.

The free text-book plan is certainly a great benefit to the schools of this county wherever the plan is carried out.—Commer. T. W. Andrews, Kalkaska county.

Charlie—"It's funny, isn't it? We never hear of labor unions south of the equator." Johnnie—"Well, you know, you're not allowed to strike below the belt."—Yale Record.

Wickars: "They tell me, professor, that you have mastered all the modern tongues." Professor Polyglot: "All but two—my wife's and my sister-in-law's."—Terra Haute Express.

The man who has never needed to have any teeth pulled is the loudest in advising the sufferer to "brace up like a man and have the thing out at once."—Somerville Journal.

Passenger (to train boy): "You probably did not know when you put this book in my lap that I was the author?" Train boy: "Did you write that book?" Passenger: "I did." Train boy: "Then you had better keep mighty quiet about it, I just sold a copy to the man back of you."

—Life's Calendar.

"I'm going to enlarge my paper," remarked the editor to the farmer. "So am I" was the response. "Why, you haven't got any paper," exclaimed the puzzled editor. "Not like yours, may be; but I've got a note out for \$250 and I've got to enlarge it to \$500 or sell off half my farm."

—Independent.

The printer's blunder which made one of Mr. Aldrich's sugared lines speak of "patent nectar" instead of "potent nectar," was, says the "Tribune," even funnier than has been supposed. A correspondent of the Boston "Transcript" says that the line originally read, "A potent medicine for gods and men," and was misprinted "A patent medicine," etc. It is also reported that Mr. A.'s equanimity was upset on another occasion because in a serious mood he wrote in another poem, "Now the old wound breaks out afresh," and was horrified to learn by the types that he, a bachelor, had said: "Now the old woman breaks out afresh."—Christian Union.

What is the necessity of two parties, as the "bosses" tell us, if one is right and the other is wrong?

ROOT'S HOUSEHOLD REPAIRING OUTFIT!

This consists of the tools and materials shown in the cut. It enables one to do his own half-soles, rubber boots, shoes, and harness repairs. No pegs needed—simply wire clinch nails. Saves time, trouble, wet feet, vexation, and expense. Any boy can use it. Sells like hot cakes. Agents wanted. The whole outfit, neatly boxed, 20 lbs., only \$2.00. Send for circular.

ROOT'S MEDICINE CO., MEDINA, OHIO. LASTO ROOT MED. Co., Medina, O.

IF YOU THINK OF GOING ANYWHERE ON EARTH

PUT YOUR INQUIRIES IN WRITING AND SEND TO

GEO. DE HAVEN, GENL. PASS. AGENT, GRAND RAPIDS, MICH.

FULL INFORMATION PROMPTLY GIVEN.

FOR MEN ONLY!

POSITIVE CURE For LOST or FAILING MANHOOD; General and NERVOUS DEBILITY; Weakness of Body and Mind; Effects of Excess of Brain, Excess of Youth, Robust, Noble MANHOOD fully restored. How to enlarge and strengthen WAK, UNDEVELOPED, and other parts of the body. Absolutely unfailing HOME TREATMENT—Results in a day. Men Testify from 42 States, Territories and Foreign Countries. You can write them. Book, full of facts, and proofs mailed free. Address EDIE MEDICAL CO., BUFFALO, N. Y.

SEE DS. 12 pkts. Flower 10c. 12 pkts. Vegetable 25c. 6 lbs. 1.50c. 10 lbs. 3.00c. All 12 pkts. Half 50c. H. F. Burt, Taunton, Mass.

MILK DAIRY FARM FOR SALE

Containing 87 acres, adjoining the village of Cedar Springs. Fine house and grounds; basement barn; abundant water; buildings 80 rods from R. R. Station, and 100 rods from Union School. Reason for parting with this fine home and property, old age and broken health. Long time given or small place taken in exchange. Inquire of C. C. BICKNELL, Cedar Springs, Mich.

THE STANDARD OF THE WORLD

FRANK MILLER'S

FOR HOME AND STABLE USE

HARNESS DRESSING

For Harness, Buggy Tops, Saddles, Fly Nets, Traveling Bags, Military Equipments, Etc. Gives a beautiful finish which will not peel or crack off, smut or creak by handling. Not a varnish. Used by the U. S. Army and is the standard among manufacturers and owners of fine harness in every quarter of the globe.

SOLD BY ALL HARNESS MAKERS.

Clubbing List with The Visitor

	Both Papers.
Weekly Free Press	\$1 00
Detroit Weekly Tribune	1 00
Cosmopolitan Magazine	2 40
St. Louis	1 50
Demorest's	2 00
Michigan Farmer	1 00
Farm Journal	25
Farm and Garden	50
Atlantic Monthly	4 00
Century Magazine	4 00

25 Silk Fringe Envelope etc. Cards with 25c. 10c. 5c. 2c. 1c. 5c. 10c. 25c. 50c. 1.00. 1.50. 2.00. 2.50. 3.00. 3.50. 4.00. 4.50. 5.00. 5.50. 6.00. 6.50. 7.00. 7.50. 8.00. 8.50. 9.00. 9.50. 10.00. 10.50. 11.00. 11.50. 12.00. 12.50. 13.00. 13.50. 14.00. 14.50. 15.00. 15.50. 16.00. 16.50. 17.00. 17.50. 18.00. 18.50. 19.00. 19.50. 20.00. 20.50. 21.00. 21.50. 22.00. 22.50. 23.00. 23.50. 24.00. 24.50. 25.00. 25.50. 26.00. 26.50. 27.00. 27.50. 28.00. 28.50. 29.00. 29.50. 30.00. 30.50. 31.00. 31.50. 32.00. 32.50. 33.00. 33.50. 34.00. 34.50. 35.00. 35.50. 36.00. 36.50. 37.00. 37.50. 38.00. 38.50. 39.00. 39.50. 40.00. 40.50. 41.00. 41.50. 42.00. 42.50. 43.00. 43.50. 44.00. 44.50. 45.00. 45.50. 46.00. 46.50. 47.00. 47.50. 48.00. 48.50. 49.00. 49.50. 50.00. 50.50. 51.00. 51.50. 52.00. 52.50. 53.00. 53.50. 54.00. 54.50. 55.00. 55.50. 56.00. 56.50. 57.00. 57.50. 58.00. 58.50. 59.00. 59.50. 60.00. 60.50. 61.00. 61.50. 62.00. 62.50. 63.00. 63.50. 64.00. 64.50. 65.00. 65.50. 66.00. 66.50. 67.00. 67.50. 68.00. 68.50. 69.00. 69.50. 70.00. 70.50. 71.00. 71.50. 72.00. 72.50. 73.00. 73.50. 74.00. 74.50. 75.00. 75.50. 76.00. 76.50. 77.00. 77.50. 78.00. 78.50. 79.00. 79.50. 80.00. 80.50. 81.00. 81.50. 82.00. 82.50. 83.00. 83.50. 84.00. 84.50. 85.00. 85.50. 86.00. 86.50. 87.00. 87.50. 88.00. 88.50. 89.00. 89.50. 90.00. 90.50. 91.00. 91.50. 92.00. 92.50. 93.00. 93.50. 94.00. 94.50. 95.00. 95.50. 96.00. 96.50. 97.00. 97.50. 98.00. 98.50. 99.00. 99.50. 100.00. 100.50. 101.00. 101.50. 102.00. 102.50. 103.00. 103.50. 104.00. 104.50. 105.00. 105.50. 106.00. 106.50. 107.00. 107.50. 108.00. 108.50. 109.00. 109.50. 110.00. 110.50. 111.00. 111.50. 112.00. 112.50. 113.00. 113.50. 114.00. 114.50. 115.00. 115.50. 116.00. 116.50. 117.00. 117.50. 118.00. 118.50. 119.00. 119.50. 120.00. 120.50. 121.00. 121.50. 122.00. 122.50. 123.00. 123.50. 124.00. 124.50. 125.00. 125.50. 126.00. 126.50. 127.00. 127.50. 128.00. 128.50. 129.00. 129.50. 130.00. 130.50. 131.00. 131.50. 132.00. 132.50. 133.00. 133.50. 134.00. 134.50. 135.00. 135.50. 136.00. 136.50. 137.00. 137.50. 138.00. 138.50. 139.00. 139.50. 140.00. 140.50. 141.00. 141.50. 142.00. 142.50. 143.00. 143.50. 144.00. 144.50. 145.00. 145.50. 146.00. 146.50. 147.00. 147.50. 148.00. 148.50. 149.00. 149.50. 150.00. 150.50. 151.00. 151.50. 152.00. 152.50. 153.00. 153.50. 154.00. 154.50. 155.00. 155.50. 156.00. 156.50. 157.00. 157.50. 158.00. 158.50. 159.00. 159.50. 160.00. 160.50. 161.00. 161.50. 162.00. 162.50. 163.00. 163.50. 164.00. 164.50. 165.00. 165.50. 166.00. 166.50. 167.00. 167.50. 168.00. 168.50. 169.00. 169.50. 170.00. 170.50. 171.00. 171.50. 172.00. 172.50. 173.00. 173.50. 174.00. 174.50. 175.00. 175.50. 176.00. 176.50. 177.00. 177.50. 178.00. 178.50. 179.00. 179.50. 180.00. 180.50. 181.00. 181.50. 182.00. 182.50. 183.00. 183.50. 184.00. 184.50. 185.00. 185.50. 186.00. 186.50. 187.00. 187.50. 188.00. 188.50. 189.00. 189.50. 190.00. 190.50. 191.00. 191.50. 192.00. 192.50. 193.00. 193.50. 194.00. 194.50. 195.00. 195.50. 196.00. 196.50. 197.00. 197.50. 198.00. 198.50. 199.00. 199.50. 200.00. 200.50. 201.00. 201.50. 202.00. 202.50. 203.00. 203.50. 204.00. 204.50. 205.00. 205.50. 206.00. 206.50. 207.00. 207.50. 208.00. 208.50. 209.00. 209.50. 210.00. 210.50. 211.00. 211.50. 212.00. 212.50. 213.00. 213.50. 214.00. 214.50. 215.00. 215.50. 216.00. 216.50. 217.00. 217.50. 218.00. 218.50. 219.00. 219.50. 220.00. 220.50. 221.00. 221.50. 222.00. 222.50. 223.00. 223.50. 224.00. 224.50. 225.00. 225.50. 226.00. 226.50. 227.00. 227.50. 228.00. 228.50. 229.00. 229.50. 230.00. 230.50. 231.00. 231.50. 232.00. 232.50. 233.00. 233.50. 234.00. 234.50. 235.00. 235.50. 236.00. 236.50. 237.00. 237.50. 238.00. 238.50. 239.00. 239.50. 240.00. 240.50. 241.00. 241.50. 242.00. 242.50. 243.00. 243.50. 244.00. 244.50. 245.00. 245.50. 246.00. 246.50. 247.00. 247.50. 248.00. 248.50. 249.00. 249.50. 250.00. 250.50. 251.00. 251.50. 252.00. 252.50. 253.00. 253.50. 254.00. 254.50. 255.00. 255.50. 256.00. 256.50. 257.00. 257.50. 258.00. 258.50. 259.00. 259.50. 260.00. 260.50. 261.00. 261.50. 262.00. 262.50. 263.00. 263.50. 264.00. 264.50. 265.00. 265.50. 266.00. 266.50. 267.00. 267.50. 268.00. 268.50. 269.00. 269.50. 270.00. 270.50. 271.00. 271.50. 272.00. 272.50. 273.00. 273.50. 274.00. 274.50. 275.00. 275.50. 276.00. 276.50. 277.00. 277.50. 278.00. 278.50. 279.00. 279.50. 280.00. 280.50. 281.00. 281.50. 282.00. 282.50. 283.00. 283.50. 284.00. 284.50. 285.00. 285.50. 286.00. 286.50. 287.00. 287.50. 288.00. 288.50. 289.00. 289.50. 290.00. 290.50. 291.00. 291.50. 292.00. 292.50. 293.00. 293.50. 294.00. 294.50. 295.00. 295.50. 296.00. 296.50. 297.00. 297.50. 298.00. 298.50. 299.00. 299.50. 300.00. 300.50. 301.00. 301.50. 302.00. 302.50. 303.00. 303.50. 304.00. 304.50. 305.00. 305.50. 306.00. 306.50. 307.00. 307.50. 308.00. 308.50. 309.00. 309.50. 310.00. 310.50. 311.00. 311.50. 312.00. 312.50. 313.00. 313.50. 314.00. 314.50. 315.00. 315.50.

THE GRANGE VISITOR

Published on the 1st and 15th of every month.

Kenyon L. Butterfield, Editor and Manager,
LANSING, MICH.

To whom all exchanges, communications, advertising business and subscriptions should be sent.

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Entered at the Postoffice at Lansing, Mich., as Second Class Matter.

It is not without some misgivings that we send forth this issue of the VISITOR. It is never easy for inexperience to fill the place of experience, for the fledgling to fly in the path of the eagle. And so we feel like begging the leniency of our readers if there should seem to them to be an abrupt falling off in the quality of the paper, feeling that possibly their kindness and charitable judgment, added to our own growth into the intricacies of newspaper management may in future make amends for any present lack.

At this time we do not wish to formulate any distinct plan for the paper. We prefer to experiment somewhat, to try, to test, and to let the success of the paper and its appreciation by its readers, be the measure of our wisdom and judgment. We would say this, however, that we desire to make the VISITOR acceptable to the Patrons of Michigan, as their organ. More than that we wish to make the paper acceptable to every farmer in Michigan, patron or not, who is in the least interested in his own advancement, materially, socially, politically.

Recognizing the standard of editorial efficiency set by our predecessors, we shall put forth our best efforts to maintain that standard; so that it can never be said that any failure on our part has been due to negligence or laziness.

But in this endeavor to keep the paper at its present efficiency we ask for the earnest help of every Patron in Michigan. Unless we have it we can not succeed. We expect the Grange of Michigan to come to the support of the VISITOR in every possible way. The obtaining of new subscribers, in and out of the Grange; correspondence, kindly criticism and suggestions, will all help. And we shall expect them all.

With this greeting and appeal we venture forth upon the busy highways of journalistic endeavor.

Our exchanges will please notice that the office of the VISITOR has been removed from Paw Paw to Lansing and will kindly send their papers to the latter place.

For some reason, probably on account of the sudden transfer of the VISITOR to Lansing, little correspondence has arrived at this office in time for the present issue. We hope our friends will not forget us.

In connection with this point we wish to make three suggestions with a rule attached to each:

Suggestion I. Let every Patron and friend write often on any topic that occurs.

Rule: Condense, that more may have opportunity to write.

Suggestion II. Let us hear frequently from every Grange in the State.

Rule: Be brief, that we may have space for all.

Suggestion III. Let us have abstracts of the best articles and discussions at the Pomona granges for publication in the VISITOR.

Rule: Get at the kernel of the matter. Put the leading ideas into the smallest space consistent with clearness. Thus we will have the advantage of all the best thought our Grange affords.

If there is an especially good

article, send it to us for publication entire, requesting that that be done. We want and need all such.

JOHN CHINAMAN.

The Chinese Exclusion Bill passed by the House ought to satisfy the most intensely selfish American citizen and the heartiest hater of John Chinaman. Looked at however even from the standpoint of pure self interest, it would seem to be an unwise policy. The fact that it will destroy faith in our government, among eastern nations, the probable immediate retaliation on the part of China and the consequent loss of our extensive and increasing commerce—these of themselves ought to cause hesitation in adopting such a measure. But add to these the blow such an act would be against the civilizing and Christianizing work of the great missionary organizations in China, and the example thus set by the most liberal nation of the world, and we have perhaps even more cogent reasons for caution.

Possibly the inhabitants of the Pacific coast may have had experiences that would justify the espousal of such extreme ideas as are embodied in this bill, but if so, they have failed to impress us of the East with the justice of their views.

LABOR AGITATION.

The news comes from Italy and from Germany that these governments look with some alarm upon the preparations going forward among the Socialists for the celebration of May-day. In Chicago it appears that the "Reds" are intending to form a huge parade and in various ways give voice to their grievances as laborers upon the same day; and simultaneously with the capture of dynamiters in Paris a police official of Chicago is reported to have admitted that there are enough dynamite bombs in the latter city, and enough men to use them, to destroy the city. What a contrast between this body of laborers, ground down it may be, but seeking by curses and inhuman threats to gain justice, and the body of citizens represented by the Grange, who are endeavoring to remove similar causes of discontent and discouragement to the laborer by the divine means of intelligence and virtue!

OUR COLLEGE COLUMN.

We call attention to the "College Column," on page 7. This is not to "boom" the college, but to help our readers. We conceive that farmers want to know what the College is doing for them. It is the intention to make this column a live medium of exchange between the College and the farmer, as concerns practical hints for the benefit of the latter. We shall not agree that all specific questions sent in will be answered by the Professors through this column, but they have kindly consented to contribute items of interest to the body of our readers, and we have no doubt would be glad to answer questions of general concern by the convenient means thus offered.

FREE WOOL.

The Springer Wool Bill has passed the House. Whatever its further fate may be, the question of a tariff on wool will continue to be the slogan of party battle for some time to come, whenever the farmer vote is considered. It behooves every sheep raiser, and indeed every farmer, to make up his mind definitely upon this question. He must seek to find the truth of the one position and the instability of the other position. To this end we present this week an article from Hon. John T. Rich, upon this subject, looked at from the

point of view of a wool grower who is a protectionist. It should be read carefully and with thought. In our next issue we hope to have an exposition of the subject by an advocate of the policy of "Free Trade."

THE PURE FOOD BILL.

We call especial attention to the communication from Alex J. Wedderburn in this issue of the VISITOR, with the above title. Let every one who reads act upon his suggestions at once. Now is the time for the Grange to assert its strength and demand from our legislators at Washington something to which the Grange has committed itself. Not only is this measure one demanded by our Order, but it is in the interests of all of our citizens. Too often, however, a good measure is suffered to be lost, simply because the interested "party of the second part"—the people, do not look to their own interests and the interested "party of the first part" defeat that which would have been to his loss and disadvantage.

Let not this be so now. Let the Grange, organized for just such occasions and purposes as this, respond to the call that comes from our workers in Washington. It is high time that selfishness, greed and dishonesty gave way before the people's demand for righteous laws.

If you don't get your paper let us know of it at once. The transfer of the mailing list into new hands may cause some mistakes. And if your correspondence does not appear when you expect it, be patient. Think rather that we are not quite "settled" yet, than that our waste-basket has been replaced by a larger one.

FAITH IN BEET SUGAR.

Henry T. Oxnard, proprietor of the large sugar refinery at Grand Island, Nebraska, and who represents four of the six sugar-beet factories in the United States, says: "Inside of ten years, the factories of this country will be producing from beets all the sugar used for home consumption. It is no longer a matter of experiment, but of business. There are four factories in the west: two in Nebraska, one in Utah, and one in California, which are producing beet sugar. Each of these factories costs about \$500,000. A large proportion of the states can profitably grow the beets." It would seem by the report of the experiments conducted in this State last year through the Agricultural college experiment station, contained in the bulletin lately issued by Dr. Kedzie, that for yield per acre and content of sugar, there are several sections of Michigan in which sugar beets can be grown at a profit, if used for making sugar. It remains to be seen whether in any section enough farmers will grow beets, and some enterprising capitalist contribute the money to build and equip a factory to manufacture the sugar. Where shall the first factory be located?

BEEF MAKING—ECONOMY IN PRODUCTION.

Economy in beef production does not consist in feeding less food to fattening cattle. It may mean more food, since the more food an animal eats, digests and assimilates in the shortest time, the more profit in the feeding. But if it costs more to produce beef than we get for it, no matter how scientifically we mix the foods, or how skillfully we induce the animal to eat his rations, it will be a losing and unsatisfactory business. If a farmer can realize by feeding grain and hay, or other fodder a reasonable price for his forage he may find it profitable for his farm, even though he has to give his time for the manure pro-

duced. But he can hardly be content with that alone; he should have something more. The cattle feeder in this State is peculiarly and unfortunately situated. His location between the states of cheap beef production in the west and the markets of the east, still costing him as much to transport his cattle to market as it does his western neighbor, makes it exceedingly difficult for him to hold his own in the business.

The cattle feeders of Michigan have heretofore held to the ways of the eastern farmers in the matter of close stabling, grinding grain etc., for their cattle, making the labor of caring for their cattle nearly double that of the western feeder. They have done this with the feeling that they made the feed go farther and produce more pounds of beef than could be done by the supposed wasteful methods of the west.

The low price of beef for a few years past, has turned the attention of some of our cattle feeders to cheaper methods of feeding, and several large feeders are pursuing a portion at least, of the western methods which Michigan farmers have formerly considered wasteful. They find, for instance, that it is cheaper to feed dehorned or polled steers running loose in a warm shed or stable, than to keep them tied or in stanchions, making it necessary to clean stables twice daily, and then not be able to keep the cattle clean. They find that the cattle appear to be more comfortable, and thrive as well or better, and the manure is better and kept with much less trouble and labor.

They also feed whole grain rather than ground, and those who have tried it are pleased. The corn grown on the farm can be run through the cutter without husking and the cattle eat corn and stalks together. If the grain is purchased it can still be fed whole. With this method of feeding, a shote for each steer on full feed, or one to two steers if not highly fed, must be kept to run with the cattle and save the undigested portion of the grain. In this way nothing is lost. The labor is reduced to a minimum, and the cattle are found to keep in good health on the whole grain, not getting "off their feed" so easily as when on heavy feed of ground grain.

Hon. Franklin Wells of Constantine is feeding 50 head in this way, and John T. Rich has a lot of young cattle fed on corn and stalks cut together, fed rather lightly during the winter and to be finished on grass. Several feeders in Ionia county have also been feeding whole grain and are well satisfied with the results, thus far.

One of the best experiments that could be conducted at our experiment station would be the feeding of a lot of steers on whole grain, or stalk and corn fed together as compared with steers fed on grain, ground and fed in the usual manner practiced by feeders in this State.

I. H. B.

SILK CULTURE.

Prof. Cook sends in the following, in reply to a query concerning Silk Culture:

The silk worm can be successfully reared wherever the Osage Orange or Magnolia will grow. Of course these shrubs and trees grow best on good soil. The whole subject of silk culture is fully described in publications issued by the Department of Agriculture at Washington.

There is no little work in rearing the insects, and there is little money in this industry, so that, as a matter of curiosity it has never been long popular with any one who has actually undertaken it. It is not at all likely that silk culture will be profitable in America for many years, if ever. Labor in Europe is so cheap, that we could not compete with it, unless the business was enormously protected.

Special World's Fair Commissioner Alexander Campbell, has returned from Australasia, and reports that great enthusiasm over the Exposition is felt in that part of the world. New South Wales, South Australia, Victoria, Queensland, New Zealand and Tasmania, are all making extensive preparations for their representation, and splendid exhibits are reported sure to be sent.—Public Opinion.

NEWS NOTES.

MICHIGAN.

April 28 is Arbor day.

A destructive fire afflicted busy Belding this week.

Judge Daniel J. Arnold, of Allegan, died in Washington April 7.

The force of clerks in the office of the Auditor General will be much decreased.

The State Board of Health announces that there is not a case of leprosy in Michigan.

The Agricultural College Cadets failed to get the prize money they won in Jackson last fall.

E. E. Riopel, of Missouri, is appointed superintendent of the Indian industrial school to be erected at Mt. Pleasant.

Susan B. Anthony will deliver an address before the Michigan Equal Suffrage Association, at Battle Creek, May 4-5.

At the late elections Muskegon county voted to authorize the raising of a two-mill tax for gravel road building through the county.

Edward D. Campbell, assistant professor of metallurgy in the University, loses the sight of both eyes from the explosion of chemicals in a glass retort.

At the recent Afro-American gathering in Lansing, resolutions were passed asking Congress to enforce laws relative to fair suffrage for the negro, endorsed the Administration and recommended the Republican state convention to appoint a colored delegate to the Minneapolis convention.

NATIONAL.

Mrs. President Harrison is quite ill.

The Springer "free wool" bill passed the House by a vote of 194 to 60.

Edward Partridge, of Chicago, lost and made fortunes, in wheat, inside of two days.

Representative Springer received an ovation on his return to the House after his severe illness.

The Senate has passed the bill appropriating \$100,000 for the national encampment of the G. A. R.

An instructor and ten boys connected with the Boston Farm School, on Thompson's Island, were drowned.

The House spent one afternoon last week in listening to eloquent eulogies upon the late Congressman M. H. Ford, of Michigan.

Senator Chandler will not vote for the election of United States Senators by the people simply to "gratify the desires of the Farmers' Alliance."

Whitelaw Reid, Minister to France, has returned to this country, and was given a magnificent banquet in New York by the Ohio society.

Five hundred and seventy-four thousand, two hundred and fifty-seven acres of reservation land in the Dakotas is opened for settlement April 15.

The Myers voting machine, used at Lockport, N. Y., proved satisfactory. The result of the election was announced immediately after the polls closed.

Congress is investigating the matter of the abrogation of the treaty of 1817 with Great Britain, in order to ascertain if we can add to the number of our war vessels on the Great Lakes.

Dr. Parkhurst's persistence in revealing specific instances of crime, debauchery and violations of the excise law in New York resulted in the closing of 4,000 saloons on Sunday and the cautious operation of the remaining 3,000.

Byron G. Stout has introduced a resolution in Congress providing for an investigation into the consolidation of the Reading, Lehigh Valley, Jersey Central and Delaware, Lackawanna & Western railways, popularly known as the "Reading deal."

The House passed the Chinese exclusion bill. It annuls every existing treaty with China, forbids the coming to this country of any Chinamen, except governmental representatives. Even Chinese residents who may temporarily leave this country are included.

FOREIGN.

The Italian government has fears regarding the results of a May day celebration.

The Berlin authorities are anxiously watching the preparations for the May day celebration by the Socialists.

Three boxes recently landed at Malmo, Sweden, labeled "machines," were found to contain 2,400 copper shells filled with powder and fulminate of mercury.

Private letters received from Great Britain by live stock exporters in Montreal, state that it is expected that the restrictions now placed on cattle on the other side will be taken off in about three weeks.

German consular reports for the quarter of 1892 show a decrease in trade compared with the same period in 1891. From Berlin the decrease is 8,000,000 marks and from Hamburg it is 5,000,000 marks in sugar exports alone. This is said to be owing to the reciprocity treaties of the United States affecting the German sugar trade to the West Indies and South America.

Cardinal Gibbons has addressed a circular letter to the Archbishops and Bishops of the Roman Catholic church in the United States, suggesting the propriety of some concerted action with respect to the solemn religious observances on October 12th next, commemorative of the discovery of America.—Public Opinion.

The greatest fire known occurred in Moscow in 1812; 30,800 buildings were consumed and the loss was \$150,000,000.

For the Visitor.

PARTY VS. WORTH.

At the time of the spring elections one can scarcely fail to note how much more the average voter thinks of party than of the character or fitness of the different candidates for the office to which they aspire. A business man in need of a clerk will inquire closely as to the character and ability of an applicant for the position, but how much heed does he pay to the political opinions of the individual. What the merchant wants is some one capable and willing to do the work required of him. But this same man who exercises his best judgment in his private affairs will go to the polls and cast his vote for men who have not the first qualification for the position to which his ballot helps to raise them, except that his party nominated them. "His party" in this case usually resolves itself into a half-dozen, or less, wire-pulling politicians, who have nothing better to do than smooth the pathway to their own preferment by placing their tools as sentinels along the way. The honest man is busy, and thinks he does his duty by voting for the candidates of his party. The politician is wiser; he knows well that the battle is more than half fought when the nominations are made. Hence he is always on hand and in the absence of better men he usually has things all his own way. Hence it is that the men nominated and elected are so often shining examples of incompetency. Then the other party howls at this, and this one answers back, when in reality it is the men, not the party, who deserve censure. A man may be just as worthy, just as capable, in one party as in another. If he is not capable he never should be put in nomination.

One man's father is a Democrat, so he is one too and regularly votes the Democratic ticket without knowing the difference between Democrat and Republican, except that one begins with a D, and the other don't. That man might as well vote for Satan, for all the good his ballot does. He is only the tool of the politician who bossed the nomination. What are we to say of such stupidity? The only wonder is that the country did not long ago come under the rule of the sulphurous personage above mentioned. There are intelligent business men with such blind adherence to party that they would vote for their man even though they knew his election would send the country to the dogs at a two-forty pace. Their opinions are all party, and in their blind worship of an ancient and obsolete organization they seem to part with every vestige of common sense and reason.

The first duty of a citizen of a republic is to seek the good of the country, and he who sacrifices the good of the republic to the claims of party is a traitor to his country and should be branded as such.

To take care of the country the politician does not consider one of his duties; his only object is to take care of himself with as little effort as possible.

What this country needs is men who think—think in politics as well as in private affairs. Men who will see that the right persons are nominated and then support them, regardless of party lines. The new way of voting gives one an excellent chance to practice discrimination. The names are all on one sheet, and he can go over the whole, selecting the best men from each party, while safely closeted in the booth, without let or hindrance from officious friends or scheming candidates,—I was going to say enemies.

It don't make any difference whether the man is sockless or not, it is sense and fitness that the country needs. The wild schemes originated by a few discontented politicians out of office and hungering for the spoils will never save the country or bring prosperity. It is preposterous to expect a man unversed in judicial matters to make wise and beneficent laws, as the large number that are declared unconstitutional amply proves. What we need is

"Men whom the lust of office does not kill;
Men whom the spoils of office cannot buy;
Men who possess opinions and a will;
Men who have honor; men who will not lie;

For while the rabble with their thumb-worn creeds,
Their large professions and their little deeds,
Wrangle in selfish strife—lo! Freedom weeps,
Wrong rules the land, and waiting Justice sleeps."

Men of training are now, more than ever, needed in our halls of legislation, and it behooves every voter to consider carefully the qualifications of every candidate before helping him to obtain the office that he may so shamefully misuse to the detriment of the country. A. L.

Eaton Rapids.

LENAWEE COUNTY POMONA GRANGE.

To the Editor Grange Visitor:

Lena-wee County Grange met with Palmyra Grange on Thursday, April 7. Opened at eleven o'clock in the fifth degree. The financial standing of Pomona No. 15 is good. Worthy Master, J. W. Woolsey, closed in fifth degree and opened in the fourth for transacting business. Recess for dinner. A splendid dinner was furnished by the good sisters who know so well how to please the brothers when the dinner hour draws near.

As the afternoon meeting was to be public some of the neighbors, not members, joined with us in the exercises. At 1:30 the W. M. called to order and all joined in singing the welcome song. The program had been prepared by Worthy Lecturer Sister M. T. Cole.

The following question was asked, "Shall we plow or cultivate corn stubble for oats." Brothers Allis and Graves would not plow the ground unless very grassy. J. W. Woolsey always plows for oats but most of his neighbors do not and seem to get about as good crops as he does. It is best however, to plow if wheat is to follow. Bro. Cheney is of the same opinion but would plow very shallow for oats. Bro. T. G. Chandler said perhaps it might do to sow sandy ground without plowing but fall plowing suited their clay loam best. Bro. Wm. Bowerman had tried sowing oats two years without plowing, but would plow after this. Bro. Martin had lately practiced cultivating and liked it, but unless the land was full with grass or weeds, drills his oats. Thinks they do better than broadcast.

Bro. J. W. Woolsey, who has had considerable experience in raising and feeding lambs, read a very instructive and interesting paper on, "Raising and feeding lambs." He keeps but few sheep—Shropshires. Lambs are dropped in March. Have access to barn and learn to eat in one week. When six weeks old feeds them corn and oats ground, until they are turned out to pasture. Takes them from ewes in the old of moon in August. Salts twice each week. Commences feeding grain when turned from ewes. By winter they are ready for full feed of corn and feeds nothing else. Usually sells January first. Average weight 100 lbs. Lambs should be fattening all the time. The alternate starving and fattening process no longer pays. Raises half blood lambs.

Bro. E. P. Allis volunteered a calf story that was relished by all. Sister Anna Palmer, Lecturer of Palmyra Grange, read a finely prepared paper. Subject, "Talent." The sentiments were concisely expressed and every one was good.

Song by Grange "The Hand that holds the Bread." Sister Frank Allis of Madison Grange favored us with a select reading, "King Robert of Sicily." Mrs. Allis reads splendidly. Would be pleased to have her read to us again. "The work of 25 years," by Bro. T. G. Chandler of Working Grange, was a review of Grange work. Mr. Chandler believes in the Grange and is one of the old standby's of the order.

Bro. Thos. F. Moore, past Overseer of State Grange, told us briefly of his trip last summer through the eastern and southern states. The very closest attention was given to his remarks.

Song—Miss Lulu Colvin.
Paper—"Corn Culture" by M. T. Cole.

Duet—Miss Hattie Cole and Mrs. Fanny Mitchell.

Sister Mary A. Baker of Madison Grange, read an essay, "Literature in the Home." Madison Grange is very fortunate in having so

many talented members. The paper was good all the way through. Our worthy Secretary, Sister Mary Allis, is also from Madison Grange. She recited, "My Dream." Delegates who attended the State Grange last winter heard Miss Allis recite and know how well she pleased her audience.

Palmyra Grange furnished program for the evening session, which consisted of songs, recitations, discussions, instrumental music, etc. M. T. COLE.

SCHOOLS.

Delivered before Lapeer P. of H., Jan. 14, 1892.

LADIES AND GENTLEMEN—There is no institution among the various educational seats of learning in this wide world to which so much importance and interest should be attached as to our common public schools.

The majestic oak with its mighty arms soaring to the sky was once a mere sapling, once a tiny plant that the faintest gust of wind swayed to and fro. The huge ship that plows the briny deep is but a creature of a larger growth, whose existence would never have been thought of, had not primitive man devised its progenitor.

And so with our great seats of learning, which are studded here and there over this glorious land of ours, like pearls in a diadem. They owe their greatness and usefulness to the influx and impetus obtained from the innumerable little red schoolhouses throughout the land.

But then enough of preliminaries. I believe I was to talk to you about schools from three sources, ancient, modern and future schools. History gives us some idea of the systems of schools in olden times, and mentions among the great educators of that time such men as Socrates, Cato, Cicero, Plato and Comenius.

Only a privileged class received the benefits of a school education, while the masses were kept in ignorance.

It was mainly from this cause that all the great nations of the ancient world such as Assyria, Rome, Carthage, Greece and many others were mighty, fell. Physical training and elocution received a great deal of attention and also the fine arts. But we must not forget that it was only the higher classes who obtained the advantages of a good training in the secular branches and also that only the boys went to school.

It was thought that woman's sphere was confined to the home circle. That it was not necessary that she should receive any school education and to Christianity must be given the credit of bettering woman's condition in this line.

About the fourteenth century a great revival of learning took place in Europe.

Constantinople had long been the seat of learning of the then known world, but falling into the hands of the barbarian Turks, the great scholars were forced to flee to other countries of Europe. And now a new difficulty arose. With the revival of learning came the necessity for more books. At this time they were written or printed by hand, a long and tedious process, consequently but a privileged few could buy books.

Soon after, however, the art of printing was invented. Books became abundant, therefore cheaper, and every one could read.

One result of this diffusion of knowledge was the great reformation which affected more especially Germany and England.

The king of England caused the monasteries to be destroyed. These had been the schools of that country, and with their removal came the necessity of some other system by which the people might be taught.

But we must pass over a century or two till we come to the time of the French Revolution. The common people of that country had not been favored with the blessings of education as the inhabitants of other countries in Europe had been. Ground under the heel of oppression till human forbearance could stand it no longer, they rose in their might, slew the unhappy king and many of his nobles, and the era of terror reigned supreme through France.

Of course the causes of this attracted the attention of many learned men, and among the num-

ber, one who will long be remembered as the father of our great national system of education, Henry Pestalozzi.

His great mind saw the evils that were certain to result from the poverty of the masses. The support of the poor is still a question of vital importance to the governments of Europe and was particularly so before the French Revolution. At that time the wealth of the country was entirely in the hands of the privileged classes, while the poor toiled for insufficient wages, with no thought for the future.

They thus became a sure prey for the workhouse and a burden upon the community.

The introduction of cotton manufactures had rendered the contrast between employer and employed more striking. This, making money more plentiful, brought into common use things which had been considered as luxuries; and the poor in attempting to keep pace with the rich gradually forgot all the principles of economy, became intemperate or wasteful and consequently were often reduced to hopeless poverty.

The only relief for this suffering supplied by the government, was the introduction of poorhouses where the innocent child and hardened sinner, the helpless sick and shiftless vagabond were herded together. They were in fact mere feeding establishments, rather than homes for the unfortunate, or houses of reform for the wicked. The occupants when dismissed usually returned to their vicious practices, which soon brought them back again. How well Pestalozzi succeeded in finding a remedy is well known to those who have made a study of the progress of education. Time and space will not permit me to deal with his system so we will pass on to note the condition of schools in England during the first decades of the present century.

The system in use there at that time was what was called the "boarding school system." Who has not read "Nicholas Nickleby" and shuddered to think that children should be treated in such an inhuman manner. Public attention was directed toward reform and through the efforts of noble hearted men, and wise legislation the free school system was adopted and now no one in that country is denied the blessings of a good education.

Passing to this country, which we probably say is the most enlightened nation in the world we will note the progress made in educational affairs here.

When this country was in its infancy schools were not very numerous and as a natural consequence there was not the same enthusiasm aroused in educational interests that there is today.

It was not till near the middle of the present century that any great movement was made toward educational reform. The labors of Horace Mann in the cause of education were of such a character as to insure to his memory the everlasting gratitude, not only of Massachusetts, which was the theater of his principal labors, but of the whole country. Nor David Page whose noble work and example has been of lasting benefit to so many teachers. He has left behind him something to remind us of him, a book called "Page's Theory and Art of Teaching" which I would recommend all teachers to read, and believe it would be well worth your perusal also.

We certainly shall not forget the Hon. Jno. D. Pierce, the father of our present school system in Michigan. To one looking upon his benevolent face and his snowy locks and into his kindly eyes, it was easy to see good reasons, why those who knew and loved him, had, as by common consent, come to call him "Father Pierce."

The free school is the product of the nineteenth century. General intelligence must keep pace with material prosperity if the foundations of government would be safe. It certainly is of universal importance that the whole people should be educated; back of the ballot must be intelligence, and so free schools and general intelligence become a public necessity.

By the ordinance of 1787 provision was made for the maintenance of schools. Congressional land grants have been made from time to time for educational purposes.

The policy of the government has been to encourage schools.

While the general government has done much to foster education there seems to be a loud call for it to grant assistance to that portion of our country that suffered most severely from the war, that the millions may be educated and made fit for American citizenship. In no way can the surplus in the national treasury be used to such advantage to the whole country. Such a policy as this towards the South would go far toward healing the wounds of the late conflict and bringing about a state of prosperity which that portion of our country can now appreciate.

Let us draw a contrast. From a small section in New England the free public school has spread over the entire country; the log school, house with its puncheon floor and seats, has everywhere been replaced by the elegant well furnished school building with attractive school books in the hands of the pupils. We now have the kindergarten with all its attractions, the very paradise of childhood, instead of the dingy old schoolhouse with nothing inviting, the terror of children.

Better teaching qualification is demanded, better remuneration offered, improved methods of teaching have been introduced. Then there were no normal schools; now public and private normals are to be found in every state in the Union, sending forth thousands of trained teachers every year. Compulsory education laws have been enacted by a number of our states and I think among the number is Michigan. I am sorry to say that the law in a great many counties of this enterprising state of ours is but poorly carried out. How is coming man or woman going to compete with his more fortunate neighbor, if he be denied the privilege of a good, practical and theoretical education. The time was when such a man or woman got along tolerably well without a liberal education. But that time is past. "This is the age of runners, and woe to the man that stops to tie his shoe string."

And still more intellectual training is no safeguard to the home or state. Some of our best educated men, in a secular sense, are in prison. They have made wrong use of their education. The heart as well as the head must be educated. There can be no doubt as to the necessity of moral culture, back of it a Christian influence. An eminent thinker has said: Whatever we would have appear in the citizen, or the nation, we must first put in the school. No factor can be more potent in the right settlement of questions of national importance than the public school, for in it the future citizens of our country are taught. How important, then, the influences which should surround our youth.

And how much more important is it that he or she, whose business it is to mould and assist in developing power, should be adapted to his or her profession. And this leads me to say a few words in regard to the teacher's political position in a community. Some people deny the right of teachers meddling in political affairs. Why shouldn't he have a right? Do you suppose he is not acquainted with the state of affairs? He has certainly not much to lose, judging the corrupted state of politics at the present time. Some people say: "Well, he will offend some of the patrons." Let them get offended. A man or woman that speaks from principle need not be ashamed. I have very little respect for the man who knows nothing but school, can talk nothing but school, and dare not talk on school matters if there is a difference of opinion in the community.

What is the function of our public school?

It is to prepare pupils for their special phases in life, to train them to the application of their active powers to some industrial pursuit?

Or is it the aim of the teacher to train and discipline the mind, all of its powers, with reference to what he may become?

If it be the former, we certainly have not the means nor the educational training to communicate such knowledge to our pupils.

We have an Agricultural College to which we can send our boys to be trained in the arts of farming or mechanism.

Continued on Page 8.

O CAPTAIN! MY CAPTAIN!

O Captain! my Captain! our fearful trip is done.
The ship has weathered every rock, the prize we
sought is won.
The port is near, the bells I hear, the people all
exulting,
While follow eyes the steady keel, the vessel grim
and daring;
But O heart! heart! heart!
O the bleeding drops of red,
Where on the deck my Captain lies,
Fallen cold and dead.

O Captain! my Captain! rise up and hear the
bells;
Rise up—for you the flag is flung, for you the
bugle trills,
For you bouquets and ribbon'd wreaths, for you
the shores a-crowding,
For you they call, the swaying mass, their eager
faces turning;
Here Captain! dear father!
This arm beneath your head,
It is some dream that on the deck
You've fallen cold and dead.

My Captain does not answer, his lips are pale and
still,
My father does not feel my arm, he has no pulse
nor will,
The ship is anchored safe and sound, its voyage
closed and done,
From fearful trip the victor ship, comes in with
object won;
Exult O Shores, and ring O bells!
But I with mournful tread,
Walk the deck my Captain lies,
Fallen, cold and dead.

—Walt Whitman.

THE POSSIBILITIES OF AN APPLE.

Has not some one advised us, if we would be well, to doctor with apples and abstinence? If not, some one would do wisely to so prescribe.

Truly, the capabilities of no healthful food are more ignored than those of the most plentiful fruit of the temperate climate.

Apples, too often, and especially on the country bill of fare, are counted simply as an extra, to be munched at leisure or pleasure, and not depended upon as a staple, regular food. Because so common, they are carelessly preserved and little ingenuity expended on their preparation for the table. In order that an apple may retain its plumpness, its savor of May blossoms, the summer wind's kisses, and September's harvest suns, it should be packed with its fellows in a dry barrel, headed up and kept in a cool place. Many good varieties will keep soundly until mid-winter in this way and a few kinds will not fully mature until late in March or April.

The King of Tompkins County and Northern Spy are ready to yield jellies in December that will vie with that extracted from berries in July, with far less fatigue and discomfiture to the extractor.

In January the Wagner,—that bearer of Pomona's palm, to my thinking,—is prime for canning. To refill one's empty fruit cans in the dead of winter with solid white apple quarters afloat in delicate, colorless syrup, is enough to ward off a spring fear that the sauce supply will run low. A cool, fresh dish of them served even in the flush of the fresh fruit season is most grateful.

The Northern Spy, Baldwin and Rhode Island Greening, when well preserved, make toothsome delicacies, cooked or uncooked, from the middle of autumn to early spring; but, left in open boxes or barrels for months, they become withered and lose all crispness and individuality of flavor. All varieties so kept tend to a common tastelessness.

The best way to serve apples is the simplest,—fresh in their own crimson and gold, and green and tan skins. From the time the first plate of Maiden's Blush in late summer is set on the table, to the bringing forth of the exquisitely dyed Canada Reds in the early summer of the next year there need be no interim in the setting forth of at least one inviting dessert.

The only uses apples are put to in many households are for sauce and pies; but even in these two forms a variety of flavoring makes almost as many different dishes. Nutmeg, cinnamon, lemon, quince, and so on, vary the otherwise tedious monotony.

Attention to details brings its own reward in even so plain dishes as these. No half-decayed fruit is fit for use, and no bruised pieces should go into the sauce, as blemishes not only discolor but blunt the flavor.

When well ripened, apples may be pared and sliced into dishes and served with cream and sugar without cooking.

Sauce made from early apples should be beaten fine in the cooking; but winter apples should have boiling water poured over them and

be cooked, without stirring, until a straw will pierce them. Prepared in a stone bowl or jar, covered with a plate and kept in a slow oven four or five hours, sauce takes on a delicious flavor and rich color.

The term "baked," applied to apples, covers a series of inviting dishes. Sweet apples baked whole; juicy apples, pared, sprinkled with sugar and baked; tart apples, halved and the cores replaced by sugar and a trifle of water, all served with or without cream, add several tempting items to our list.

Then boiled apples, a dessert fit for the gods! The Northern Spy is best for this purpose, both because of its color and its splendid cooking qualities. Cover a half-dozen perfect apples with water in a porcelain kettle, add a large cupful of sugar and cook until tender; remove the fruit carefully, boil the syrup until quite thick, then pour over the apples.

Below are a few modes of combining apples with other ingredients, all simple and taking but little time to prepare—cardinal arguments in their favor.

Tapioca and apple pudding: Pour a pint of boiling water over three tablespoonsful of tapioca and one teaspoonful of salt; let simmer in a pudding-dish on the back of the stove until dissolved. Fill the dish with quartered apples, one teaspoonful of sugar, two tablespoonsful of butter and season with lemon or vanilla. Stir all together well, place in a hot oven and bake an hour.

Steamed batter pudding: Butter a two-quart tin basin, fill with quartered tart apples; pour over them a batter made of one quart of flour, two teaspoonsful baking powder and one of salt, stirred up with milk; steam one and a half hours over a hot fire. Serve with hot, sweet sauce.

Brown Betty pudding: A layer of bread crumbs, sprinkled with sugar, a lump of butter and a dust of cinnamon, followed by a layer of apple, seasoned in the same way; another layer of crumbs and so continue until the dish is full, having the last layer of apples. Pour over all a teaspoonful of water. Serve hot with cream and sugar; or, serve cold with the addition of a meringue.

Apple custard: Pare sweet apples, steam until tender and serve with boiled custard poured over them.

J. B.

BRAZIL.

The following is taken from a letter of Prof. Davenport's recently received. It may interest Michigan housewives:

Rio de Janeiro is quite a metropolitan city, so it is scarcely a type of South American towns, but all are dirty. The most of them are fairly well supplied with street cars, here called "bonds" because the first roads were bonded by English capital. The cars are smaller than our own and are drawn by from one to six little mules, often one or more of them balky. In many cases the tracks are very poorly laid, and the cars have questionable springs under them, so that when under full speed—the driver makes the most of his opportunity after getting all his mules under headway, particularly if down grade—the passengers sit very stiff and straight, though trying to look unconcerned.

The streets are mostly very narrow; Rua de Onoidor, the Broadway of Rio, is not wide enough for two carriages to pass, and during business hours only foot passengers are allowed on this street. They have a curious way of naming the streets after the days of the month, as the first of March—Rua Primeiro de Marco.

The buildings are built with thick concrete walls plastered white outside, and many of them in the cities have the fronts faced with colored, flat, porcelain tiles made in Europe. The universal roof is made of red tile. A city seen at a distance is a mass of white walls covered with a sea of red tiles. Through the country the houses are built of brick, or of what is far more common, a frame of sticks and bamboo bound together, and plastered inside and out with mud from this red clay. Among the poorer classes there is nothing more, and they live on mud floors, and build their fire right on the floor, the smoke

straining through the thatched roof, depositing the soot on the walls and rafters; and here the family, chickens, pigs, dogs and goats share the same shelter. On a farm you will see one quite pretentious house with white plastered walls, and near it long rows of white thatched mud houses such as I have described, clearly showing the remains of slavery days. I should say that the only sources of light or ventilation in these mud houses are little patches high up on the walls where the mud has been omitted.

But let us take a look at the inside of the farmer's house. I will describe the house that is on the college farm, which was once the home of a prosperous sugar manufacturer and cane raiser. The rooms are large and very high, many of them extending to the roof like a great bay in a barn. The sitting room is ceiled overhead and painted white, the walls papered with bright figured paper or plastered white with a dado at the base of the red clay. In general the sleeping rooms are small dark rooms off the sitting room, none of them having light or ventilation except by the door and a small transom above, unless it may be the one room that happens to be at the outside; this may have one window. The Brazilian thinks fresh air in a sleeping room unhealthy. The windows are low and wide and set up high, just high enough to lazily rest the elbows, and it is the occupation of many people to rest in this position from early morning until night, gazing at whatever chances to pass that way. The usual way of arranging the furniture in these rooms is, a wide high-backed settee at one end of the room, with two stiff rows of chairs bearing white ties on their straight backs, arranged at right angles to the settee and facing each other, making an avenue leading to the latter.

The dining room and kitchen open together, having one common dirt floor and one common smoke-stained, cobweb-hung roof above them; and as the gentle breezes pass through, bits of old-time soot are wafted down and deposited on your plate, in your glass of water, or whatever it may be. At one side of the dining room are the chickens' quarters, and they are fed on the floor of the dining room.

There are very few American stoves in use and they are quite a novelty. The Brazilian stove is a structure of brick and mortar with an iron top in which are holes for the reception of the cooking utensils; but they have no covers, so if there are not as many dishes preparing for dinner as there are holes in the stove they are left to smoke. The wood, six feet or more in length, is poked into an opening at the front, and burns from the end. The back part is built up for a draft, and as it is never much heated it is an excellent place for the chickens to promenade and take a peek, or a possible peek, into the kettle, where perhaps one of their number may be gently simmering. There is an excuse for a chimney, but far more smoke escapes in other ways than through the chimney.

LEARN TO TALK.

O, girls, learn to talk. I have been among girls a great deal, in fact was once a girl myself, and the folly of talking idle nonsense seems so plain to me that I would like to make my girl friends see it too. I have known so many girls, bright girls, who were hiding their talents behind empty chatter and "joking" with their young gentlemen friends, making such foolish retorts and pointless little speeches, that I have wished they could see themselves as others see them. If they could I am sure they would want to begin all over again, and learn to talk worthily of themselves, and of the friends they honor with their conversation. A truly witty rejoinder, a good pun, even a bit of piquant retort (always supposing it to be given respectfully and in order), these are the salt that savors speech.

But may be you are looking puzzled over the "how" of learning to talk. It is well worth the effort, this rubbing up of your intellect. It is only a bit dulled from want of use. Sterling silver keeps bright by being used. So, nothing dis-

heartened, begin straightway the good work and show the duller coin of mankind how well a girl can talk.

Be well-read, if that means acquainting one's self as much as possible with the best that is in this wide-awake literary world,—books, magazines and clean newspapers. Read them critically, forming your own opinion of their strong and weak points. Be original and fight bravely for your opinions, but if your good sense detects their unstability, retire gracefully into the background, behind the wiser opinion of some one else. If a fine picture is on exhibition, and making a stir in the artistic world, go to see it, if that be possible. If not, get acquainted with it and its creator through the medium of print. Be able to take a modest part in the talk about it when it is under discussion. If a book lately published is creating a name for itself, read it and be able to speak intelligently of it when the time comes. O, there are a thousand and one ways of storing one's mind with valuable material for entertaining conversation by-and-by.

Make yourself as well informed as you can in all the happenings and writings and creations of this lively nineteenth century. I am morally certain that you will be glad you spent the time in study. It is a work, or rather a pastime, that needs wide-opened eyes and ears all the time.

Now girls, don't you see I mean just this: Have your ammunition stored up, ready, but don't burn your precious powder until you can hit the mark?—Annie Hamilton Donnell, in *American Agriculturist*.

BE PROMPT AT MEALS.

This forenoon my wife and I put our heads together to cut up the pork, recalling as best we could knowledge that had lain dormant for a dozen years, and got so interested in it that we didn't know when it was dinner time, and found it to be some time after twelve when we thought about it. This made our dinner late of course, but it is such a rarity here that I believe it may not be out of place to base a few remarks upon it.

I have been married nearly nineteen years, and in all this time, when my wife was well, have not had to wait half a dozen times after the regular hour for a meal. On the other hand my wife has very seldom had to wait meals for me—when away with a load of produce, I can not of course always be back on time.

I speak of this because I know many farmers are quite irregular at meals, often staying in the field to finish a piece of work from ten minutes to two hours after the regular dinner hour. I know one man who sometimes works until 3:30 to finish, when the regular dinner hour is between twelve and one. Such irregularity is unbusinesslike and unprofitable. In my younger days it was quite common with farmers to be irregular, but I married a village girl whose father was a mechanic, and it took but a short trial of a strictly regular system to convince me that it was as advantageous to the farmer as to the mechanic to observe regular hours.

At first it came hard to quit exactly at 12 or 6, especially if there was but a furrow or two to plow, or a small bit of any work uncompleted; but after a while I came to regard all work as a part of a season's job to be completed as fast as possible, but at all times to be subject to the regular interruption of meal time. Looked at in this way, it is no trial to unhitch when the time comes, whether there be much or little to complete the job.

Meals are not only much better when eaten promptly, but it is of great advantage to the housewife to know that the men will be on hand at a certain minute to eat them.—L. B. Pierce in *Country Gentleman*.

THE HUSBAND AND WIFE.

Never allow yourself to become so wearied with the indoor work that you lose your interest with the life outside. There is no one thing that so unites the interest of the husband and wife as a quiet stroll over the farm, watching together the growth of vegetation. As the spring is near at

hand let us take a new interest in the garden, and have our little corner, where we can have some of the beautiful flowers.

These will prove of special interest as they bud and blossom. You will be surprised from the time the seed is put in the ground until harvest time. Have some chairs in the garden to rest a bit and watch the glow in the western sky. The interest is mutual then; the husband feels that the wife's visits prove her real interest in the work he is doing. I have been to walk many a time when my day's work had been tiresome and a lounge in the hammock was very tempting, but I so longed to hold a partnership in all that goes toward making a happy home life that I never refused the invitation to take a walk in the garden or field. I never failed to find rest and pleasure sufficient to fully repay me.—Mrs. F. H. Bailey in *Farm and Home*.

IN THE SPRING.

In the spring a fuller crimson comes upon the robin's breast;
In the spring the wanton lapwing gets himself another crest;
In the spring a livelier iris changes on the burnished dove;
In the spring a young man's fancy lightly turns to thoughts of love.

—Tennyson.

THE IDEAL FARMER OF THE FUTURE.

Secretary Rusk, in a recent newspaper interview, spoke these words, which were reported in the *Detroit Tribune*:

"The only hope for the American farmer will be in his brains. The sharp competitions between sections and countries which will be induced by increased facilities for transportation, will stir the agriculturist up to his best efforts. His chances for fortune making will be great, but he will have to be prepared to fight the battle of competition for them. He must be sufficiently well educated in science as far as it is applicable to agriculture, and he must be intelligent enough to study his surroundings and to apply his knowledge to the conditions about him. He will be able to meet his fellow citizens on an equal footing, and his brains will command from his class in the industry which he represents the respect and consideration which he deserves and he will give other classes and other industries due respect in return. The farmer of the future will be a business man, able not only to compel his soil to do its best in the matter of production, but to study the markets and know what will sell the best and what will command the highest price. This farmer will keep his accounts like any other business man, so that he may know exactly where his profits are and where have been his losses. These are strong qualifications, but they are essential to the farmer who would do his business on a broad plan and who would succeed. As to the question of his education, when you consider that he must have a knowledge of all the principles of animal and plant life, that he must understand the constituent elements of soils and fertilizers, and that he must have some knowledge of meteorology, chemistry, and the other sciences closely connected with crop raising, you will see that the ideal farmer of the future will have to be not only a brainy but a well educated man."

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(See adv. Ingersoll's liquid rubber paints. Ed.)

A French company is now building a street car line in Tashkend, the capital of Russian Turkistan, where, not very many years ago, any white man who had visited the place would have lost his head.—*New York Sun*.

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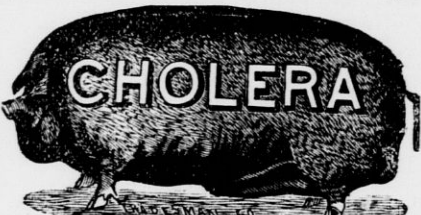
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Benton Harbor, Ar.	2:55	9:25	5:00
Grand Haven, Lv.	3:44	10:13	6:18
Muskegon, Ar.	4:15	10:45	6:50
Grand Rapids, Ar.	5:55	10:10	8:10
Grand Rapids, Lv.	5:17	9:25	7:25
Newaygo, Ar.	6:49	9:52	8:52
Big Rapids, Lv.	8:15	9:45	10:45
Ludington, Ar.	9:50	10:20	12:20
Manistee, via M. & N. E., Ar.	10:22	10:52	12:45
Traverse City, Ar.	10:59	11:29	1:45
Elk Rapids, Ar.	11:59		

P. M. A. M. P. M. A. M.

Hartford, Lv. 12:10 8:10 3:10

Benton Harbor, Ar. 2:10 9:10 5:10

St. Joseph, Lv. 3:10 10:10 6:10

New Buffalo, Ar. 4:10 11:10 7:10

Michigan City, Lv. 5:10 12:10 8:10

Chicago, Ar. 6:10 1:10 9:10

P. M. A. M. P. M. A. M.

1:26 p. m.—Has Free Chair Car to Grand Rapids, connecting with 5:17 P. M. Free Chair Car to Manistee.

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GOING NORTH.

No. 1 No. 3 No. 5 No. 7

Cincinnati, Lv. 8:10 8:50 9:30 10:10

Richmond, Ar. 2:20 3:00 3:40 4:20

Fort Wayne, Ar. 6:00 6:40 7:20 8:00

Fort Wayne, Lv. 2:35 3:15 3:55 4:35

Kalamazoo, Ar. 8:00 8:40 9:20 10:00

Kalamazoo, Lv. 5:15 5:55 6:35 7:15

Grand Rapids, Ar. 7:05 7:45 8:25 9:05

Grand Rapids, Lv. 11:00 11:40 12:20 1:00

Cadillac, Ar. 2:15 2:55 3:35 4:15

Potoskey, Ar. 5:45 6:25 7:05 7:45

Mackinaw, Ar. 7:00 7:40 8:20 9:00

P. M. A. M. P. M. A. M.

GOING SOUTH.

No. 2 No. 4 No. 6 No. 8

Mackinaw City, Lv. 7:20 8:00 8:40 9:20

Potoskey, Ar. 9:10 9:50 10:30 11:10

Traverse City, Ar. 10:45 11:25 12:05 12:45

Cadillac, Ar. 2:25 3:05 3:45 4:25

Grand Rapids, Ar. 6:20 7:00 7:40 8:20

Grand Rapids, Lv. 7:50 8:30 9:10 9:50

Kalamazoo, Ar. 8:55 9:35 10:15 10:55

Kalamazoo, Lv. 12:40 1:20 2:00 2:40

Fort Wayne, Ar. 1:00 1:40 2:20 3:00

Fort Wayne, Lv. 4:20 5:00 5:40 6:20

Richmond, Ar. 7:00 7:40 8:20 9:00

Cincinnati, Ar. 7:00 7:40 8:20 9:00

P. M. A. M. P. M. A. M.

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College Column.

RAPE FOR SHEEP.

Among the experiments to be tried at the Station this year is one which will be of especial interest to the sheep breeders of the State. It is proposed to grow rape with a view to determine its feeding value for lambs in Michigan. Field No. 15, containing about 13 acres, will be devoted to this use. At least 130 lambs will be weighed and turned in upon the field at the proper time (in September) and will be allowed to remain there as long as there is sufficient food for them, probably until some time in November, when they will be taken out, weighed and used for further experiment in winter feeding. The station has on hand about 300 pounds of seed and will gladly furnish a limited amount of the seed to any person or persons who may wish to co-operate in the experiment.

Rape has been grown in England for a long time. But little attention has ever been paid to it in this country however. Prof. Shaw of the Ontario College has grown it successfully for several years and is enthusiastic in his praises of it as a crop for fattening lambs. It has been grown to some extent by Canadian farmers.

The crop resembles Swedish turnips while growing, but unlike the turnip it has no bulbous root, but rather its roots ramify in all directions through the soil and the entire feeding value of the crop is above ground. The roots extending as they do through a large amount of soil and even to the subsoil have a corresponding advantage in getting hold of plant food and in turn have an excellent mechanical effect upon the soil, and when the crop is taken off they are left in the soil to give back again a portion of the food which they have taken. The amount of seed required per acre varies from 1 to 2 lbs according to kind of soil, richness, etc. Time of sowing about July 1st; manner, drills; crop should be kept free from weeds, and is usually ready to feed off by the middle of September and one acre will furnish feed for from 10 to 15 lambs until into November.

There are a few very important precautions to be taken however. Lambs should be well filled with some other food when first turned in upon the rape; and if they are of extraordinary value perhaps rape should not constitute the entire food. Lambs of ordinary value have been fattened however upon rape alone, without having access even to drinking water.

It is hoped that a considerable number of farmers will join us in carrying out this experiment in different parts of the State to determine whether or not this is a profitable crop to raise.

PROF. HARWOOD.

President Clute writes thus concerning Prof. P. M. Harwood, the new Professor of Agriculture, in the *Speculum* for April:

Prof. Harwood comes of old Massachusetts stock. He traces in direct line to John Harwood, 1630, who is believed to have been a son of Henry Harwood, who came in the fleet with Gov. Winthrop. He was born in Barre, Mass., in 1853. His boyhood was spent on the home farm. He went to the country school, then to the high school in Barre, then to the Massachusetts Agricultural College, where he graduated in 1875. His father died in 1876, and he then took the old homestead and became a breeder of fine stock, his specialty being Holstein-Friesian cattle, of which he bred one of the best herds to be found east or west.

He was chosen Lecturer of Barre Grange in 1877, '80, '81 and '82. He was Master of the same Grange in '83, '84 and '85. In 1886 and '87 he was Lecturer of the Massachusetts State Grange. In 1889 he was chosen a member of the executive committee of the Massachusetts State Grange, and over-seer in 1890 and '91. In 1887-'89 he was president of Barre Central Cheese Company. He was a member of the Massachusetts Board of Agriculture 1889-'91, during a part of this time being a member of the board of control of the Massachusetts Experiment Station, and of

the examining committee of the college. He was much in demand for work in farmer's institutes, lecturing widely over the State. In 1891 Mr. W. J. Hayes, of Ravenna, O., secured Prof. Harwood as manager of his large dairy farm, from which work he was called to our college in December last.

DIRT ROADS.

By this term is meant those roads which are formed of the natural soil found in the line of the roadway. They are so common as to be almost our only roads outside of town and city limits and will for many years be used largely in country districts, and especially on the lines of cross-roads which connect the main highways. Dirt roads, at their best, are greatly inferior to Macadam and Telford roads in every essential of a good highway; in durability, cost of maintenance, drainage, tractive qualities, and, in many locations, in point of economy also. But the dirt road is here, and the public hand must be directed to its treatment. The first and most important thing necessary for the maintenance of a dirt road may be stated in a single word—drainage. It is the one thing that can neither be dispensed with nor neglected. Most dirt is soluble, and easily displaced under the softening influence of rain, and this process is hastened in the dirt road by the passing of heavy wagons over the wet surface. On every mile of roadway within the United States there falls each year an average of 27,000 tons of water—a heavy, limpid fluid, always directing itself to the nearest outlet and seeking the lowest level. Water is hard to confine and easy to release, and yet, through sheer neglect of the simplest principles of drainage, water is the most active destroyer of our country roads.

In providing for the drainage of a dirt road we should first consider the material of which the roadway is composed. If a heavy, viscous clay predominates, the ordinary side-ditches should be of good depth, and will even then, in many cases, be inadequate for thorough drainage without the addition of a center-drain running midway between, and parallel with, the side-ditches. The center-drain should of course be filled with loose, irregular boulders, cobblestones, broken bricks or similar filling, covering a line of tiles or fascines at the bottom, and should be connected with the side-ditches by cross-drains carrying the water outward from the center-drain at proper intervals along the length of the roadway. * * * Center-drains, though often greatly needed for the improvement of country roads, are not in common use. They add somewhat to the cost of the roadway, but, in most cases, considerably more to its value, and should be employed in all situations where sand or gravel cannot be had to relieve the heaviness and water-holding properties of the clay. If gravel, sand, or other porous material can be conveniently or cheaply obtained, the center and cross-drains may often be dispensed with by mixing the gravel or sand in plentiful quantities with the clay roadway, so as to insure as nearly as possible a porous and self-draining surface-layer, which should not be less than ten inches in depth, and should be laid on the rounded or sloped subsoil so as to insure easy drainage into the side-ditches.

In locations where the prevailing material is of a loose, sandy nature, the difficulties of drainage are more easily overcome, and side-ditches, if found necessary at all, may be made of moderate depth and left open, without incurring the risks and dangers of travel that prevail where the deeper open ditches are used for draining heavier soils. But, on the other hand, the light and shifting nature of sandy road-material destroys its value as a surface layer for an earth roadway, and its deficiency in this respect is most easily remedied by the addition of a stronger and more tenacious substance, such as stiff clay. When mixed with sand in proper proportions (which in each case depend upon the nature of the clay and sand used, and which can be best determined by experiment) this composition affords many advantages which make it superior to a road-

way composed of either sand or clay when used alone. The sand serves to quicken the drainage and to destroy the sticky, tenacious qualities of the clay, while the clay supplies the quality of cohesion in the substance of the road-surface, counteracting the shifting qualities of the sand, and making the roadway more easily packed and rolled, and more likely to retain its proper grade and slope.—Isaac B. Potter in the *Century* for April.

A DESTRUCTIVE BEETLE.

This family of beetles, the Capricorn beetles, so called because of their long horn-like antennae or feelers, are interesting, not only because of their many peculiar structural characteristics, but because, in their larval or grub state, they do much damage to our forest and shade trees, and to many garden and lawn shrubs.

The grubs or borers differ as much from each other in habits as do the mature insects in workings and color. Some are found boring in the trunks of trees, others in the limbs. Some devour the wood, some the pith, while others live in the stems or roots of herbaceous plants.

The first segment of the thorax is dark in color, of a horny consistency and in the spring the mature female deposits her eggs in holes and chinks in the bark of the plant upon which the grub is to feed. After a short time the eggs hatch and long, whitish fleshy grubs appear, varying in size, according to the species. The head is much smaller than the first segment of the thorax, is dark in color and armed with short powerful jaws by means of which it bores its way into the wood.

One of the most destructive species of this family, is the apple sap-eater.

Although preferring the apple, this insect is also found on the pear, quince and mountain ash. In June the female deposits her eggs in some convenient place on the branches and from these the young grubs hatch, boring at once into the interior, making shallow cavities, often just under the bark. There they remain the first season and soon the bark begins to wither and crack. In the case of young trees these discolored spots may be easily detected and the larvæ destroyed. As winter approaches the larvæ dig deeper and remain until the next season; this is again repeated when the third season the mature insect appears.

As preventive measures, alkaline washes are recommended. Soft soap mixed to the consistency of paint with a strong solution of washing soda and applied on the trunk and lower branches is good.

The American Currant Borer is another very troublesome member of this family. In this case the cutting out and burning of the affected stalks is most effectual.

Our farmers are not untutored, irresponsible, visionary fanatics that their enemies would like to make the world believe. On the other hand, they are liberal in their views, are always open to conviction, conservative and law-abiding.—*Farmers' Commercial Adviser.*

If You Want to Go

to any point in Michigan, or from anywhere in Michigan to any point in the East, South or West, you will almost invariably find the direct route to be the Michigan Central, whose numerous branch lines traverse the State in every direction, and whose great main line is "The Niagara Falls Route," between Chicago and Detroit, and New York, Boston and the East.

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No other road runs directly by and in full view of Niagara Falls, when (at Falls View) its day trains stop five minutes to give passengers the most comprehensive view of the Falls and River that is afforded from any single point.

No other road from the East runs directly by and in full view of the colossal buildings of the World's Columbian Exposition, and enters Chicago along the beautiful lake front to its depot, within a few minutes walk or ride of the principal hotels and business houses of the World's Fair City.

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SCHOOLS.

Continued from Page 5.

We have our University for broadening our education or to prepare us for any professional pursuit; our Normal for the preparation of teachers and our Mining School.

When a pupil enters the public school a teacher has no means of knowing what particular instruction he should receive for his occupation; and for this reason these seems to be the strongest reasons for directing public instruction towards that broad and general development of the individual that makes the true man, and thus prepares him to enter upon any pursuit to which his intelligence may fit him and inclinations direct him.

What seems to me the most important era in a person's life is the training received in early childhood.

O the necessity of laying a good foundation both physically and mentally in the spring time of life! Did you ever realize the great responsibility that rests on your shoulders for the moral and bodily development of your child? And then as the little tots troop off to school, their home you might say, the moulding room in which their destinies are shaped, did you stop to think of the great responsibility that rests on the teacher who is supposed to lead them along the paths of knowledge and virtue?

I have heard the remark and you have no doubt, the same very often, "Oh well, my children are all small and it won't need any one that knows much to teach them." I have stated before the necessity of laying a good foundation, and who but a master mason can do it?

We quite often hear the remark, "Well, I have not any children going to school, so it makes no difference to me whether school keeps or not," as if he did not care for his neighbors welfare and the good of society, that the rising generation should be properly trained to fit him to take his place in the ranks of noble American citizenship! The early years of a man's life certainly have a great influence in moulding his character. As the pilot with the slight turning of the wheel changes the course of the heavily laden ship, so events apparently insignificant in themselves acting upon the impressible nature of a child may effect his entire destiny. It is said of Haydn that the sweet singing of his mother beside his cradle, called forth that training for music which distinguished him in after life.

The impression left on the youthful mind of Garfield by his noble mother, never showed itself in such a striking manner as the day of his inauguration as President of this great Republic, when, amid the auzzas and cheers that greeted him, he stepped back on the platform and kissed that aged mother.

And now parents what are you doing towards laying a proper foundation for your child's future happiness? What incentives are you placing before him? Do you remember when you were a child? Do you answer the thousand and one questions that he asks? Do you visit this home of his occasionally? If you do not, what do you know about the true state of your child's welfare?

What are you doing towards encouraging your boys and girls to read?

Do you occasionally or quite often ask them what they have read during the week?

How many times we hear the expression that "he is a Republican" or a "Democrat" just because his father was one. This is not the right view of things. The rising generation should be taught to look at the affairs of his country from a broad sense and not from a narrow, contracted groove. Your homes should be supplied with good reading matters, and among your list of books I would suggest such books as "Wonderland," "Water Babies," and many others I might mention for the little folks, "Pilgrim's Progress," "Uncle Tom's Cabin," "Tom Brown at Rugby," "Black Beauty," "Lady of the Lake," "History of England," "Boys of '76" and Longfellow's works.

Some one says, "I can't afford these books, it's enough to buy their school books." Well, perhaps it is so in your case; we believe you are honest in what you say.

But have you not seen men who, in a short time drank enough to buy one of the best of these books or wasted his money and time so that he might be able to draw smoke through his mouth? Of course you have; you know it to be a fact.

And now a word in regard to the needs of our schools. Every intelligent farmer knows without me saying much about it, that along with his best systematic devices and plans, that he must have the necessary implements to work with.

And so it is of great importance that every school should be well equipped. A school should be furnished with maps, a globe, unabridged dictionary and a physiological chart. This last named article is of great use in making the lessons on hygiene and temperance very plain.

The standard of education in our common schools is a great deal higher than it was a few years ago, and it is of the utmost importance that these articles be furnished.

There has been considerable discussion this last few years in regard to the grading of the district schools. It seems to be the opinion, the unanimous opinion of the teachers' associations throughout the State that it would be of great benefit to our system. One good idea about it is that one pupil coming from another district would have no difficulty in being classified.

Another subject of remark is the text-book question. What we need throughout our state are uniform text-books. There is no reason why we should not. The remark is often made that to accept only one series of readers would be to grant a monopoly to some firm. I do not see how such would be if the government had made specific arrangements with them. Here is an example of the present system: A man has a family of five or six children going to school. He moves from this county to some other part of the state where the text-books are entirely different. See the expense he has to undergo because we have not uniformity in our text-books. Then there is the township unit system. Some of the benefits arising from it are:

All children in a township are on equal footing.

The cost of maintaining would be distributed equally over the township.

Efficient teachers would be kept in the same schools.

All the schools would be uniformly classified and graded.

Schoolhouse sites would be more satisfactorily located, and the quarrels over district boundaries would be abolished.

The length of school would be uniform throughout the township.

The school laws would be better enforced, and more intelligently enforced.

Another move in the right direction is the University Extension movement.

Professors from our University visit different towns and cities and deliver a series of lectures which have been delivered before the students in the University. The object, as I understand it, is to enable young men to prepare themselves for some profession who have not the means of attending school.

And now my time is up and I have not said anything in regard to future schools.

I do not believe we can conceive the improvements that will be made in our schools before the close of this century, and for the present I can only say with the poet:

The common school. O let its light
Shine through our country's story!
Here lies her wealth, her strength, her light,
Here lies her future glory!

F. J. ERWIN.

John Gilmer Speed, in *Harper's Weekly*, estimates the weekly profit of a small daily paper, printed in a certain town of 6,000 inhabitants, to be \$88.50. This must, however, be an extreme case, and one in which the whole business is conducted on an absolutely cash basis, as no allowance seems to have been made for bad debts.

The Talmud is a collection of the ancient Jewish unwritten or oral laws and traditions. It is composed in prose and poetry and the period of the rabbis quoted covers six centuries before 220 B. C.

THE PURE FOOD BILL.

WASHINGTON, D. C., April 9, '92.

EDITOR VISITOR:

No people has in the past been more earnest in their effort or more prompt in responding to my appeals in behalf of action to secure national legislation to prevent food and drug adulteration than those in Michigan. But being situated so far from Washington, or, more probably, thinking the "Memorials of the National Grange" were all that were necessary (just as they should have been) they have failed to return me the petitions that I have sent out for signature, and the result is indifference on the part of some who should (and under other conditions would) take an active interest in this matter. The only question for the people of your State, and all the other states to decide is, do they wish to prevent food and drug adulteration? If so, they should act. There is no time to lose.

Senate Bill No. 1, known as the Paddock Bill, is about as good a measure as will pass the courts and Congress; it has passed the Senate and is on the House calendar with a favorable report from the House committee on agriculture; shall it be allowed to die on the calendar—that is the question?

Doubtless some of your people consider me a persistent crank, probably I am one, but having at the invitation of the secretary of the National Grange, Brother Trimble, and by direction of the State Grange of Virginia, started out to secure pure food legislation, I can only say I am not made of the material that stops before I am done. What I desire to say to the people of Michigan and to the people of the country is simply this: If they wish pure food and pure drugs they must be up and doing, and not procrastinate. Official investigation shows that it costs \$1.60 to feed each person in this country every week, or over 5,400 millions a year; that of this sum at least two per cent is adulterated injuriously, poisonously, or that food products to the amount of 108 millions are adulterated with poisons every year. A nice subject for contemplation to the man who buys what he eats! This is the criminal part of the matter; the fraudulent part, where your money is taken for one article and you are given another, or part of another, is quite a different subject and runs up to at least fifteen per cent or 700 millions every year. It is easier to write figures than to appreciate their real meaning when they run up into the hundred millions.

What the people wish to know is that they are sold a different article from that for which they ask, and pay their money and in many cases the article they buy is *injurious* and often *poisonous*.

State laws cannot be enforced unless we have a National law. Congress alone can give us a National law and we need every honest man who produces food and every honest manipulator of food products to write to Congress at once and demand that the Pure Food Bill becomes law.

The Senate has performed its duty and passed the bill. The sub-committee of the House Committee on Agriculture (headed by the way by a Michigan Representative, Mr. Youmans) has done its duty and unanimously reported the bill—the House committee in full session has done its duty, and reported the bill, and Chairman Hatch of the committee has done his duty and made his report and placed the bill on the House Calendar, and one might think the bill was sailing in smooth waters—but a cloud no bigger than a man's hand rises, out of which a storm may grow; the men who thrive by fraudulent and criminal adulteration are putting in their oar (otherwise money) and the great daily papers that defend the farmers (?) and the Constitution (where it suits them) are pouring grape and canister into this measure—a measure demanded by the Grange to protect the hearth, the pockets, and the morals of all the people; therefore Mr. Editor I write for your aid—I write for the best ability you command, and for the united support of the Patrons of Michigan and every honest man in your State, and I simply ask them to write a few postal cards and to induce their friends to do the same thing to, 1st, Col. Hatch, Chairman

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Committee on Agriculture of the House; 2d, Hon. Chas. F. Crisp, and ask that the Bill be considered; 3d, to their own Congressman, asking that he vote for the bill and see Col. Hatch and Mr. Crisp.

There is no time to lose—no time to waste, that is, if you wish this bill to become law.

Standing guard, as it were, it becomes my duty to fire the warning shot at the approach of the enemy and to arouse the army of honest people throughout the country, at the approach of a despicable, insidious, rascally foe who is armed with the means secured by downright robbery to defeat our just demand, and is using it recklessly to still further rob and cheat the people of our land. Let the farmers of America who have ever performed their duty to their country arise in their integrity and power and crush out the fiend of adulteration that is sapping the honesty and health of our people.

ALEX. J. WEDDERBURN,
Char. Leg. Com., Va. State Grange.

THE CACTI.

Why they Have Spines and Other Repellent Devices.

The reason for this bellicose disposition on the part of the cactuses is a tolerably easy one to guess. Fodder is rare in the desert. The starving herbivores that find themselves from time to time belated on the confines of such thirsty regions would seize with avidity upon any succulent plant which offered them food and drink at once in their last extremity. Fancy the joy with which a lost caravan, dying of hunger and thirst in the byways of Sahara, would hail a great bed of melons, cucumbers, and lettuce! Needless to say, however, under such circumstances, melon, cucumber, and lettuce would soon be exterminated; they would be promptly eaten up at discretion without leaving a descendant to represent them in the second generation. In the ceaseless war between herbivore and plant which is waged every day, and all day long the whole world over with far greater persistence than the war between carnivore and prey, only those species of plant can survive in such exposed situations which happen to develop spines, thorns, or prickles as a means of defense against the mouths of hungry and desperate assailants.

Nor is this so difficult a bit of evolution as it looks at first sight. Almost all plants are more or less covered with hairs, and it needs but a slight thickening at the base, a slight woody deposit at the point, to turn them forthwith into the stout prickles of the rose or the bramble. Most leaves are more or less pointed at the end or at the summits of the lobes, and it needs but a slight intensification of this pointed tendency to produce forthwith the sharp defensive foliage of gorse, thistles, and holly. Often one can see all the intermediate stages still surviving under one's very eyes. The thistles themselves, for example, vary from soft and unarmed species which haunt out-of-the-way spots beyond the reach of browsing herbivores, to such trebly-mailed types as that enemy of the agricultural interest, the creeping thistle, in which the leaves continue themselves as prickly wings down every side of the stem, so that the whole plant is amply clad from head to foot in a defensive coat of fierce and bristling spearheads. There is a common little English meadow weed—the restharrow—which in rich and uncropped fields produces no defensive armor of any sort; but on the much-browsed-over commons and in similar exposed spots, where only gorse and black-thorn stand a chance for their lives against the cows and donkeys, it has developed a protected variety in which some of the branches grow abortive, and end abruptly in stout spines like a hawthorn's.—*Grant Allen in Longman's Magazine.*

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Careful observation and comparisons made by scientific Americans prove that the hottest region on earth is on the southwestern coast of Persia, where that country borders the gulf of the same name. The thermometer never falls below 100° at night, and frequently runs up to 128° in the afternoon.—*Pittsburg Dispatch.*

Holyoke, Massachusetts, manufactures one-half of the paper used in the United States.

Woonsocket has the most extensive woolen mills in the country.

Troy, New York, is noted for laundries.