

THE GRANGE VISITOR

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

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Agricultural Department.

THE SONG OF THE WORKERS.

I sing the song of the workers, the men of the busy arm,
Who give us our daily bread, and keep us from hunger's harm;
Who labor afar in the forest, who leave the fields of toil,
Who take no heed of the sunshine, and mind not sweat or toil.

I sing the song of the workers, who harvest the golden grain,
And bind it, and thrash it, and sift it, nor care for the sting and stain;
Who load it in creaking wagons, and stoutly their oxen drive,
And bid them good-bye as they go, like the bees flying home to the hive.

I sing the song of the workers, the men who struggle and strain;
Who give us their muscle and nerve, as they guard the loaded train;
Who give us their sinew and brain, as they watch the prisoned stream,
And run the risk of their lives, as they pass the perilous stream.

I sing the song of the workers, and men who labor and thrive,
Who handle for us the honey that comes to the human hive;
The patient and tireless workers, with muscles as tough as steel,
Who carry the heaviest burdens, and lift, and trundle and wheel.

I sing the song of the workers, demanding for His just and rightful due for all the work he has done,
For all the work of the workers, no matter whom, or where,
To each from the grand result, his honest, proportionate share.

Manufacture of Drain Tile.

ARTICLE NO. 4.

FRYING AND PREPARING FOR THE KILN.

There is no clay that will stand rapid drying in the sun and wind without cracking. The best of clay needs some protection and some clay needs a great deal of protection, and some then will crack.

The amount of water that is contained in the freshly molded tiles will depend very much on the way the clay has been treated.

There is a certain amount of water that enters in the clay in a chemical combination, known as hygroscopic water that cannot be driven off without the application of about 400 degrees of heat. This water composes about 13 per cent of the weight of the clay, but in addition to this is a large amount of moisture which probably makes 25 per cent as the tile leaves the machine, which is largely removed by ordinary evaporation.

This drying is done in a shed made in such a way that the amount of sunshine received can be governed in a great degree. A very simple one may be made with a board roof with dimensions 18 feet wide, six feet high to eaves, and as long as may be necessary. An alley six feet wide is left in the center and on each side of this is a row of shelves composed of slats each shelf being six feet wide; these shelves are placed about eight inches apart for machine made small tile. The tile are placed on these shelves with a half round paddle and left horizontally if the clay is pressed hard enough to stand such treatment, otherwise room will have to be left to stand the tiles on end.

For the sides and end of this shed doors are provided, fastened with hinges on the upper side, by propping these doors open at any desired angle the drying of the tiles are regulated. Clay that cracks badly is sometimes improved by the addition of a little salt. The time taken to dry tiles varies from four days to two weeks, depending both on the tile and the weather. They are kept in the shed until thoroughly dry and quite hard when they are removed and taken to the kiln. For carrying the unbaked tile around the yard spring barrows are needed; it will not do to wheel them on ordinary barrows as the jar of small obstructions will break them.

SETTING IN THE KILN.

We will now suppose that the kiln is constructed, although the method of building will not be described until the next article. The tile are wheeled in and placed on ends in the space reserved for them, setting the smaller tile inside the larger ones and resting one row of tiles on another. Care must be taken not to choke up the heat passages and to leave about the

same amount of space around each tile.

After the tile are in place the kiln entrance doors are sealed up, the fire applied gradually until the steam has been driven off. This operation is called by the tile men "water smoking" and requires from 24 to 36 hours. After the water smoke is driven off the fire is increased as much as possible, until the burning is about completed. This requires from 21 to 48 hours more. The kiln is then shut up to keep out the cold air and allowed to stand until nearly cool, which usually takes about one week more, when the operation of burning will be completed.

Cheese Versus Wheat.

Henry R. Howard of Marlette, S. P. Bullard of Newcomb and W. of Richmond, still cling to the absurd theory that wheat turns into chess. I said in reply to Mr. Howard that "Science, the laws of God and nature, are against you." Now let us see. Read the eleventh and twelfth verses of the first chapter of Genesis. Here God declared, that grass, herb and tree, whose seed in itself should yield fruit after its kind, and it was so. And God pronounced it good, not a chess. Nature is always true to itself; sometimes grains are injured, and the result is smut or fungus. But no injury to one kind of grain can cause it to change to another, much less grain to grass. Now what says science? For an answer to this question, I send you an article from the *Farmer's Review* of June 19, which I hope you will publish, or at least a part of it. There is no guess work in that article, but facts which can not be overthrown. Now which shall we believe, God, nature, and science, or the guess work or belief of a few poor farmers, for I assert that no good, scientific farmer will continue to raise chess after it is eradicated from his grounds. Let this hit who it will, it is true nevertheless.

In the report of the department of agriculture for 1883, on page 85, the question is discussed, and we think authoritatively settled. As many of our readers may not have access to the report, we publish below the following questions addressed to the botanist of the department, with his reply. If this does not satisfy inquirers, we have no hope of being able to do so by anything which we might offer:

QUESTIONS.

1. Will wheat under any circumstances whatever, change into chess, and, if so, what are the conditions?
2. If not, why will chess come up so abundantly, (sometimes almost to the exclusion of wheat itself) in fields only where wheat is sown?
3. Will either wheat or chess, under any conditions change to timothy? (This is asserted to be the case by some.)
4. Has chess a botanical name, and to what cereal is it most nearly related, botanically?
5. Is it possible for a head of wheat and another of chess to grow upon the same stalk, or for a stalk of each to grow upon the same germ?
6. Has the department of agriculture ever offered a reward or prize "for a grain of chess that would sprout?" (I was informed that a reward of \$50 had been offered.)

These questions cover, I believe, the main features of the case, and by answering them at your earliest convenience, you will greatly oblige,
Yours very truly,
ROBERT RIDGWAY.

REPLY.

Sir:—Your letter has been duly received and considered. The subject is an important one, as it relates to a wide spread popular error. We have received numerous inquiries on this subject, mostly from Illinois, where the wheat has suffered extensively from the last severe winter. The conclusion reached by a large class of farmers, that wheat changes into chess or chess, must by every intelligent naturalist be considered enormous. It would be quite as proper to claim that a sparrow would change into a hawk, or an oak into a beach. Still it must be admitted that there is apparent grounds for the opinion. The difficulty arises from an imperfect consideration of the facts. As an answer to the questions you propose will elucidate this statement, I will at once proceed to their consideration:

Question 1. To this I reply, that under no circumstances can such a change occur.
Question 2. The reason chess comes up abundantly under such circumstances is as follows. There is always more or less chess growing in wheat fields, and consequently there is more or less chess seed in the ground from self seeding, as well as from chess seed, which is, in most cases mixed in greater or less quantity with seed wheat, even when great care is

taken to clean the seed in the ordinary method. Chess is more of a hardy nature than wheat, and is much less subject to injury by frost. It always happens that during a severe winter, a quantity of wheat is destroyed, chiefly in low places, subject to alternate freezing and thawing, by which the roots are broken, and exposed by the process of "heaving." In such cases the chess plants being of more hardy nature are uninjured, and having the ground now to themselves grow more vigorously, and "stool out" abundantly, so as to take full possession, and then we have a crop of chess instead of wheat.

Question 3. Such a change is equally impossible with the other, and not any more so, although the absurdity of the case will be more generally admitted.
Question 4. Chess has a well-known botanical name. It belongs to the genus *Bromus* and is nearly related to *Festuca* or *Fesene* grass, and not closely related to any common cereals. There are about forty species of *Bromus* in different parts of the world. The species which is commonly known under the name of chess is *Bromus secalinus*. With this is frequently found two or three other species in the same field. The difference between the chess, narrow spike of wheat, and the loose diffusely branched panicle of chess, or chess, is very great, and a change of one of these to the other would be a great violation of the laws of nature, and without a parallel in either the vegetable or animal kingdom.

Question 5. A negative reply is the only one that can be given to this question, if the above statements are correct. We have several times had specimens sent us claiming to be wheat or chess growing together on the same head, but on examination these proved to be merely a branch of chess accidentally entangled in the stalks of a wheat head. Specimens have also been sent claiming to be wheat and chess growing on different stalks, but from the same root, yet a careful examination showed the roots of the two plants were closely intermingled without any structural connection.

Question 6. No such reward or prize has been offered. The department has too much reason to believe that having sprouted it will struggle for existence and development.

Had these queries come from a spring wheat section of the country there would probably have been another question of the following character. Why do we not have chess in spring wheat fields? The reply to such a question would be, that chess, like winter wheat, begins its growth in the autumn, and, if any existed in the ground prepared for spring wheat, the plowing and harrowing would destroy it or prevent its development.

A Useful Device.

The various occupations in the farmer's business may be pleasant and attractive in the aggregate; he may enjoy beautiful scenery, cool refreshing breezes, as he reclines in happy contentment after his toil. He may regale himself upon the choicest luxuries of his own producing and feel himself "Monarch of all he surveys" at least as long as he can forget that milking time is drawing near, when he must doff his regal habiliments and submit himself to the most repulsive occupation of milking amidst the foul odors of stable or yard, the special attraction for flies, mosquitoes, who have him at their mercy; and worse perhaps than all else is the ceaseless flageellation from poor brindle's caudal appendage quite regardless of the circumstance of cleanliness or otherwise, and otherwise, is the more usual state of things. Millions of people are anxiously waiting the advent of the genius who will make milking by machinery a practical success. In the meantime I herewith present to the suffering milkmaids and milkmen of the universe a simple little device which deprives brindle of her power to annoy in the way above mentioned. A clothes pin and a cord of suitable size, 1 1/2 feet long. Fasten the cord to the head of the pin. Now all is ready. Take your place ready for milking, pass the cord around the cow's leg, enclosing the dreadful tail, draw the cord as tight as necessary and slip the loose end in the jaws of the pin; the pressure secures it. One second makes all secure, an instant will release it. Now you have nothing to dread. Your thoughts may dwell upon pleasant themes and the usual execrations may be deferred to a more appropriate occasion.

Arenac, Mich. C. S. KILLMER.

Vanderbilt's net income is \$19.67 per minute.

Peppermint.

BURR OAK, Mich., June 9, 1884.

Enclosed please find a slip cut from one of our county papers in regard to the peppermint industry, which is quite a profitable branch of farming in our county. You remember I spoke of it when at your club some years ago. As there has been some improvement since I was there, I thought it would interest you. I hope some time to meet with your club again. Crops of all kinds are looking very finely, and fruit, except peaches, bids fair for a very large crop. A. E. K.

It may be news to a great many to be informed that St. Joseph county leads the world as a peppermint county, and that her re-distilled oils command the highest price and meet with the most ready sale, but such is the case of Mr. A. Todd, of Nottawa township, is the largest grower and distiller of the plant. He has recently perfected a method for crystallizing the product that has wrought a revolution in the drug as a commercial commodity. By his invention the distilled peppermint is reduced to a beautiful and snow white crystal form, and is so strong that the minutest particle touched to the tongue is like a spark of fire. He recently had a quantity of it in the photograph gallery of N. James, and the writer had the privilege of examining it. A reporter of the *London Globe* recently visited the distillery of Mr. Todd, and has this to say of the process:

"After watching for some time the process of passing through the almost innumerable steam pipes, condensers, etc., of a quantity of amber colored oil, we were delighted to see it come out perfectly pure and white and freed from a resinous gummy substance of about the consistency of black strap molasses. From this interesting process we turned and followed our conductor to the room now used for reducing the oil to crystals. Here we found many curious devices, and were shown much of the process used to complete this work, but as Mr. Todd has several patents pending at Washington, our correspondent could not safely enter into detail this time. Mr. Jones, the able assistant of Mr. Todd, assured us that already the demand for his new product far exceeded the capacity of the works, and that arrangements were now perfected for the erection of more buildings and an increase of facilities."—*Husbandman*.

THE ANNUAL farce of road-making is now before an admiring public in numberless districts where primitive ideas are held concerning obligation to mend the highways, or to be more precise, "to work out the road-tax." The farce is visible in the manner of work—the performance—ludicrous if it were not so pitifully contemptible. The usual method of making a roadway in country districts, is to plow at the sides of the beaten track and haul the soil earth in where the wheels must pass. Of course, there are situations where nothing better can be done without extravagant cost, but they are not many, and even in such cases the work is rendered inefficient by being done at a time of year when the earth does not pack well, and the track, therefore, remains soft in dry weather. Most farmers have an intuitive, yet inchoate, perception of the farcical character of the work; hence the disposition commonly manifested to shirk it as far as possible. The law stipulates that a day's work on the road shall be eight hours, meaning that so many hours shall be employed in faithful labor. But farmers get around this easily, spending the time, or a great share of it, in performance wholly irrelevant, in story-telling, in political discussion, in any way to pass the time along and get credit on the road-warrant. A plow on the road a day counts for a day's work, and the team the same, the driver another day. It is customary to take a team and a plow, or scraper which counts for the same, and a driver, making altogether three days. But the team will plow a furrow or two in the ditch and then go under the shade of a tree with the men seated on the fences or lounging as best suits convenience at the time, while the obligation to work is utterly forgotten. The main purpose to get the days counted off the list attached to the warrant, and in a great many cases, perhaps a majority, the road is actually in worse condition after the botching it gets than before it was touched. Is there any possible way to correct the methods? Can the roads be worked as farmers would do similar work on their farms,—good, honest time, and good honest labor expended with the purpose of accomplishing an object, making the roads good? It is hardly necessary to say what good work is for every farmer knows. Not one in ten would make on his own land a private road so poorly as a majority make the public roads. Yet every farmer is personally interested in the roads in his own neighborhood and should feel earnestly desirous of having them put in the best possible condition and kept so. As a matter of fact road-making should be done in early spring before the ground

is suited to farm work. The roads will be muddy of course, but if the hardest material that can be procured be put in the track to sufficient depth to withstand the passage of wheels it will pack down hard and solid through the season, whereas under the present method of making mud (are supplied). It may be worth while to call attention to this subject because there is lethargic stupor in the public mind about road-making. But the evils visible constantly in every road district as the result of foolish and utterly indefensible performance, necessarily excite remark, and it is therefore extremely desirable that a general awakening to the necessities of the case be had.—*Husbandman*.

Chewing the Cud.

Every child living in the country has stood and watched the curious operation, and wondered what the lump was which he saw come up in the cow's throat, and then go down again after she had chewed it for a certain length of time. And perhaps he may have seen the anxiety and turmoil produced on a farm by the report that some one of the cows had "lost her cud," and as the result of this excitement he may have seen the absurd attempt to "make a new cud," in hope that this cow would by such means be restored to good condition. There is in the minds of a large portion of the readers of the *Scientific American* (which simply means the community) so little correct understanding of the true nature of "chewing the cud" that a few words concerning it may not be amiss.

A very large tribe of animals, of which sheep and cows are only familiar examples, are called in works of natural history Ruminantia because they do so "because their peculiar organs of digestion require it; they can get their nourishment in no other way. They have, it is said in the books, four stomachs, but the statement is not strictly correct, for the entire digestion is done in a single one, that which is called the fourth, the other three being only places for preparatory work. Their food is swallowed without being chewed; the chewing is to come later. When this unchewed food is swallowed it passes directly into the first stomach, to use the common term; but the drink which the animal takes goes straight past the entrance of the first into the second. These two serve only to soak and soften the coarse food. When the first has done what it can, the food passes out of it into the second, and then the cow or sheep is ready to "chew the cud."

The second stomach, while busy at work in soaking the food, keeps it in motion, and gradually rolls it up into masses, so that in the small upper part there is formed an oblong solid lump of the size that we recognize as the "cud." This the animal throws up into the mouth, and chews with evidently as much satisfaction as the same act of mastication gives us when we put the most delicate morsels between our teeth. When it is sufficiently chewed, the mass is swallowed and its place taken by another which had been rolled up in the meantime.

But the "cud" thus masticated does not return to the second stomach, from which it had come. It passes smoothly into the third, a place for additional lubrication, and then into the fourth, where the true digestion begins and ends.

This is, in brief, the whole story, and we see how naturally the chewing comes in; it is the same as in our own case, only that it is at a different stage of the food's progress. And we see also what "losing the cud" really is. The cow or sheep is suffering from indigestion; the "second stomach" has failed to roll up the little masses suitable for chewing, and there is nothing which the poor beast can bring up. Of course, therefore, the one thing required is to restore the tone and power of the stomach; not to burden it with an "artificial cud," which would only increase the difficulty, instead of relieving it.

Water for Stock.

The farmer who made a single pump furnish water through rubber tubing to the stock in four fields did a very ingenious and wise thing. Animals should be able to obtain drink whenever they feel thirsty. The water then taken has a better effect than if given at convenient intervals by the farmer or his assistants, for in the latter case the animal is very apt to drink more than is really good for him. Then, again, if the attendant is concerned at all about the quantity of water the animal takes, the chances are he will pull him away before the demands of nature have been satisfied. For a small outlay of money a farmer can in a multitude of cases, arrange the water supply of their live stock so that they can drink whenever they feel dry. Such a method is economy in a double sense—in the well being of the stock and in the time of the owner or his help.

For fertilizing salt, address, Larkin and Patrick, Midland City, Michigan.

The Grange Visitor

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Secretary's Department.

J. T. COBB, SCHOOLCRAFT.

THE PLASTER BUSINESS OF 1884.

When in Grand Rapids a few days since we called on the Alabastine Co. which by arrangement furnishes plaster to the Patrons of Michigan and elsewhere.

In answer to enquiries about the plaster trade of 1884 we learned that there appears to have been some falling off in the demands of late years. This corresponds with our observation. Some farmers who used plaster freely a few years ago use less, and some who used to haul it home from Grand Rapids with a team, frequently requiring 2 or 3 days to make a trip, use less now when it can be had at half the cost. As to the wisdom of this course we have nothing to say but simply note a fact.

The Alabastine Company got out a large amount of rock last season and as we have had no complaints we feel sure that the claim of the company, that the rock was well ground must have been true. The sales were satisfactory, amounting to 8189 tons prior to June 1st.

While we have no figures of the sales of the combination, yet there is satisfactory evidence showing that the total sales of the other five mills of land plaster was but little more than the amount sold by the Alabastine Company.

This company held steadily to its contract price of \$2.50 per ton filling orders from outside parties as well as Patrons for a time or until apprehension that their supply of rock might not meet all demands. Then outside parties were refused. Later when it became evident that all orders could be filled sales were made to all parties alike.

The combination starting in with a flourish of trumpets and a general notice that plaster would be sold for \$1.25 per ton held on until the plaster dealers of the State supposed they were going to have a good thing out of the business this year. As this scheme did not have the effect intended of demoralizing the Alabastine Company, the combination concluded to supplement one folly with another and this was accomplished by putting the price of land plaster up to \$3.00 per ton on board of cars. This served to disgust plaster dealers and add to the business of the Alabastine Company.

There have been two or three instances of misunderstanding in reference to charges for switching which were satisfactorily explained. Aside from these the business has run without any friction or unpleasantness whatever, so much so that very little reference has been made to the plaster business in the VISITOR.

The combination, left to itself, beat itself and the Patrons of the State were simply interested witnesses of its blundering folly.

To our farmer friends we would say, turn out and take part in the primary meetings of the political party to which you belong if you are a partizan, and work with a definite object in view, and let that object not overlook the great interests of the farmer class of this country. If you will not do this you are forever estopped from grumbling because farmers hold so small a proportion of the important and responsible offices in the State and nation.

If you think the great agricultural interests of this county can and will be best taken care of by lawyer's, work for such representation in Congress. But if you think agriculture should have more than two or three per cent representation in the legislative body of the nation govern yourself accordingly. Don't stay at home—attend the primary meeting and act for yourself with intelligent, well-directed effort to elevate the great agricultural class of this country.

MEETING OF THE MICHIGAN PRESS ASSOCIATION.

The editors of Michigan believe in association. Many of them believed in it when William Saunders, O. H. Kelly and their colleagues had conceived the idea, and put in practical shape a scheme for organizing the farmers of the country.

The last session of the National Grange was its seventeenth. An invitation received from its President A. McMillan, to meet the Michigan Press Association on its seventh annual session in Bay City on the 24th of June, is the evidence we offer that the editors of Michigan, like her farmers, have an organization of about the same age as the organization of the Patrons of Husbandry. We thought perhaps a farmer editor might add to the assortment, if not to the value of the collection, and so concluded to accept the invitation.

As the invitation included the better half of the editorial fraternity, with wife and satchel, we left home at 4 P. M. on the 23d, and in a few hours were enjoying the hospitality of old friends in the city of Jackson. Our visit there was just so much more than the bill called for and was greatly enjoyed. At 7:35, on the 24th, we boarded the Jackson, Lansing and Saginaw train for Bay City. Arriving soon after noon we were soon registered at the Frazer House.

Although the meeting had been called at 10 A. M., yet the many did not reach Walton Hall where the meeting was held until after dinner, and this was soon enough, as little transpired in the forenoon. At 2 P. M. the afternoon session was called to order by the President, who introduced his Honor, Mayor Wesdock, by whom the association were welcomed most cordially in a neat speech.

Recreation, and enlarged acquaintance are among the objects of these annual meetings. But this is not all as the following programme of work assigned to members of the fraternity sufficiently proves.

The first paper was read by George Boynton, of the Detroit Free Press—Subject, "Law of Libel!" Some discussion followed the reading of this paper. A majority of those who spoke favored the views of Mr. B., that we editors are not sufficiently protected by law. We did not say a word, but kept thinking it was hardly fair for a newspaper man to be liable to damages for prevaricating a little in his paper, when a first class lawyer makes his reputation by suppressing or perverting facts, and making a jury believe that black is white, and incurs no hazard for damages in doing so.

The discussion terminated by the appointment of a committee charged with the duty of drafting a Bill for presentation to the next legislature, calling for such modification of existing law as shall protect Michigan Editors from the raids of hungry lawyers who occasionally persuade some fellow to the belief that his reputation has been damaged some definite amount, and he is willing to assist in repairing his shattered character for about half the amount of damage claimed.

The other papers were "The country editor as a business man" by D. B. Angier of the Charlotte Republican; "The relation of the newspaper to politics" by A. J. Aldrich of the Coldwater Republican; "Practical points in publishing a newspaper" by M. D. Hamilton of the Monroe Commercial; "The relation of the press to social and moral reforms" by A. S. Keczic of the Grand Haven Commercial; "Advertising agents," by J. W. Hallock of the Grand Rapids Post; "The mechanism of a newspaper" by Wm. Van Buren of the Lansing Republican, and "Legal advertising" by Hon. Geo. M. Dewey, of the Owosso Times. These papers were carefully prepared, and while some of them were enlivened with humor, notably that of Bro. Hallock, all will be found interesting and valuable reading.

We suppose the association has somehow made Bay City believe that it was honored by the presence of these gentlemen of the press and in recognition a sumptuous banquet was spread at the Frazer House, to which all were invited.

After the session Tuesday evening, some 200 guests sat down and made no haste to leave. Following the banquet the programme called for an experience meeting, with W. P. Nesbitt of the Big Rapids Herald as class leader. The tables were beautiful with floral decorations and we enjoyed the evening very much although we cannot pronounce the class meeting an immense success.

The officers elected for the ensuing year were C. S. Hampton of Harbor Springs, president; Orno Strong, Nashville, secretary; Fred Slocum, Caro, treasurer, and Traverse City is the place of meeting.

Wednesday A. M. was cold and rainy, but despite these unfavorable conditions about half the company accepted an invitation to ride on the river on the steamer Wellington Burt owned by Messrs. Root & Middel which the firm had kindly placed at our disposal for a short trip. This gave us an opportunity to get some idea of the lumber and salt interests of this city. And ten minutes at a landing adjacent to a

cut block gave us an idea how salt could be manufactured so cheaply here. The refuse material of the large saw mills is used to evaporate the brine. When Michigan pine is gone Michigan salt will not be made at such small cost.

We knew of the Saginaws and Bay City but confess our surprise at the size and importance of Bay City. It claims third place in population and in business activity it certainly ranks high.

Before the association adjourned resolutions were adopted of thanks to the gentlemen of the press for the valuable papers read, to the officers for the management, to the good people of Bay City for their generous hospitality and attention, and to railroad officials for transportation.

At two o'clock the excursionists left by rail for Mackinaw and the upper lake country. Arriving at Mackinaw City in the evening we at once took a steamer for St. Ignace, some eight miles distant, where a train of the D. M. & M. R. was ready on regular running time to take the party now numbering 125 to Marquette, a Lake Superior mining town 150 miles distant which was reached about seven o'clock Thursday morning. We had enough daylight after 4 o'clock A. M. to be satisfied that a night's ride from St. Ignace to Marquette is just the thing provided you have satisfactory sleeping accommodations.

The country is low, much of it wet with little timber of any value; its unpromising monotony was wearisome. Occasionally we saw some evidence of pine of some value, but no good tracts were in sight by daylight, and very few houses at any point along the whole distance.

It was an agreeable surprise to be whirled at railroad speed from such an uninviting country suddenly into the very lap of a beautiful city—for such is Marquette.

It was a bright morning when we were met by the agent of the railroad Frank Milligan Esq., and the citizens committee and quartered at the Clifton and Mesnard hotels for breakfast. The conditions were favorable for a day of genuine satisfaction. At ten o'clock all the livery in the city with private carriages sufficient to accommodate the entire party were at our disposal.

Every place of special interest was visited and the time spent most happily until the dinner hour, at which time all assembled in the dining hall of the Mesnard House to partake of a sumptuous banquet. Of that it is sufficient to say we were right royally entertained.

We must not forget to mention that the Mesnard is kept by a widow lady, who cast upon her own resources with a family of young children has shown her ability to keep a hotel and keep it well, and has made some money in doing it.

Marquette is beautifully situated on high ground overlooking her splendid harbor, with ample shipping facilities, with paved streets, fine public buildings and many elegant private residences; proofs of the enterprise of her citizens are everywhere apparent.

But we did not come to see Marquette only. The iron mines were of special interest and by the courtesy of the officers of the Marquette and Western railway company about half past two the party were provided with transportation to the mines of Negaunee and Ishpeming over and around which are the villages of same name, the first some 15 miles distant from Marquette.

Passing Negaunee, three miles further, the train pulled up at Ishpeming near the engine house of the Cleveland mine.

This engine house was first visited. We shall not attempt to describe the ponderous machinery used to elevate the ore and drive drills hundreds of feet away down deep in the bowels of the earth. The pumps and mechanism for driving them are immense. The cars or "skips" for bringing the ore out of the mine on a railway track, bring 2½ tons at a load, and go often.

The work as a whole must needs be on a large scale requiring a large amount of capital, mechanical skill of a high order and clear headed, sound, executive ability.

The Cleveland mine gives employment to about 700 men, and some 800 tons of ore are raised daily from this mine. There are others in the vicinity having a larger production.

The New York mine it was stated, turned out last year 60,000 tons which we suppose contributed in a legitimate way to the famous "barrel" of Samuel J. Tilden, its President.

The party spent over two hours in pursuit of knowledge and enjoyment in this mining town, and all were greatly pleased with what they saw and learned of this immense business. Our party were favored with the personal attention of Gen. Passenger Agent Frank Milligan, Supt. Mc Coull and other gentlemen of Marquette, who contributed in no small degree to the pleasure of the trip.

The return trip was made on a down grade, and we found ourselves well qualified for the next important business. We were to have another all night ride, and we made the best preparation possible, by partaking of an excellent supper at the "Mesnard."

Another hour of social enjoyment, and we bade farewell to our new friends and their enterprising city, and boarded the train for St. Ignace. A good sleeper, and a good night made the return trip pleasant, and at the end of a twelve hours run we found ourselves at the other end of the road, at 7:30 Friday morning. The party at once boarded the steamer Gordon which had been chartered for our use and in a few moments we were off for Mackinaw Island. The season had hardly opened, at this now famous summer resort, and we found only the John Jacob Astor house doing business. Here the party breakfasted, and in carriages or on foot, soon after started out, armed with a guide book to explore the natural curiosities of this famous island.

In company with a couple of men younger by at least thirty years, we first visited the fort and witnessed a company of Uncle Sam's blue coats do red tape duty, as prescribed by authority. From the array of whitewash here, there, and everywhere, the whitewash brush must be a military weapon. From the fort a by path was followed to Robinson's Folly. Farther on we found Fort Holmes, Arch Rock, Sugar Loaf Rock, Lover's Leap and Devil's Kitchen and the nice summer cottages of some of our Kalamazoo county citizens. After a walk of many miles, we dare not say how many lest our veracity be questioned we reached the Astor House at two o'clock well qualified for dinner expecting from our long tramp to be completely jaded out. We were surprised at night that we were no more weary than usual and we are prepared to express the opinion that in ten years Mackinaw Island will be the finest summer resort in the United States west of the Mississippi. Easy of access, a delightful climate, with a soil that will make excellent roads, this great National Park once improved by the general Government, will find the conditions all present to make good our prediction.

At three P. M. we returned to the little steamer and were soon all on deck enjoying a run of 18 miles to Cheboygan. Here the party divided, some taking the little steamer Mary on the Cheboygan river for Mullett Lake and its famous hotel, finally landing at a station on the J. L. & Saginaw railroad from which point they started homeward by the evening train, south bound.

The rest of the party returned over the same road to Mackinaw City, and accepting the generous offer of the G. R. & I. railroad at ten o'clock each for himself sought rest as best he could, only intent now on getting home on the morrow.

As this was the third all night ride taken consecutively, we again sought the comfort of a sleeper where we had a good night's rest, reaching Grand Rapids at 6:30 Saturday morning.

By those who know, it was said this annual meeting was by far the largest of any in the history of the association.

That it is well for members of the press to come together and become acquainted is almost self-evident, as such acquaintance serves to remove the bitterness of partisanship in politics and the narrowness which comes of too little direct intercourse with our fellowmen. Besides if the opportunities are well improved valuable hints in the business department of the work are picked up and adopted.

While we have not entered into details with much particularity yet we hope we have given our readers an article worth the space it occupies.

BRO. ARMSTRONG, THE VISITOR AND POLITICS.

In the VISITOR of June 1st under the heading, "The Next Governor of Michigan," we heartily endorsed the Hon. C. G. Luce of Branch county for that office. But that endorsement was expressed in words and phrase quite too tame to suit Bro. Armstrong, of the Husbandman, Elmira, New York. And he has said so in very plain English. All right, Bro. A. In rising to explain we need not waste words in an effort to show that the editorial department of the VISITOR has acquired something of a reputation for independence of expression.

In looking over the field we see that the body of the Order possesses a large amount of good, practical sense. But while this is exactly true, there are many who mean to be good Patrons, whose views or notions of the constitutional restrictions placed upon all good Patrons by obligations assumed, forbid the discussion of political questions above your breath anywhere, and see in the advocacy of any man for any official position an alarming danger.

We have in mind some good citizens who were once good Patrons but left the Order from sheer apprehension that the Grange of which they were members was drifting from its constitutional moorings.

While the Order as a whole has steadfastly adhered to its principles, in some places a disregard of those wise restrictive provisions found in the constitution of the Order has proved disastrous.

The Subordinate Granges of Michigan have in the main been saved from internal dissensions growing out of political discussions by the good sense and good judgment of their members and the judicious rulings and good advice of its State Masters. On our part we have accepted or refused articles covering political subjects of a partizan character in our discretion and, as we believe, got along fairly well. We have said we are in favor of the nomination of Cyrus G. Luce for Governor. The reasons grow out of what we said long years ago, that in the effort of the Order to elevate and improve the agricultural class the ambition belonging to our common humanity could not and should not be ignored, and nothing looking to political action has been so persistently urged in the editorial department of the VISITOR, as the nomination and election of a farmer to the office of Governor of this State. We made this a point, for this office stands out clear, distinct and prominent, and in this great agricultural State the farmer class in the half century of our State existence had not received such recognition as its special interests, its large amount of invested capital, its numbers, and intelligence have demanded. Here then we could most readily fix the attention of our readers, be they farmers or not, and here seemed the best field in which to work for practical results. But in this work, being the Order more than party, we have had due regard to partizan prejudices which we could not rudely set aside believing these prejudices could be best eradicated by recognition and careful handling. "One man can lead a horse to water but ten men can't make him drink." Perhaps we ought to be thankful to Bro. Armstrong for his kindly effort in bracing us up to the work of electing a farmer governor, but where best known we are not charged with any excess of that christian quality which seems to him so out of place when discussing a matter of such practical importance. The GRANGE VISITOR is quite willing to enter the field as advised, and help make a governor who will be an honor to the State, but in so doing will not exhibit such eagerness as to arouse unfriendly action on the part of any other class. We like the outspoken frankness of the Husbandman and we see in its sturdy blows for independent, intelligent, political action a powerful advocate not only of the farmer and his class but of the people. Its hearty endorsement of Bro. Luce comes of knowing so well the sterling qualities of the man, and not because he is a prominent member of the Order, and we are glad to assure Bro. Armstrong that from the present outlook there will be little or no opposition to the nomination of farmer Luce. His acquaintance with public affairs more or less, for more than a score of years has given him a large acquaintance with the public men of the State. These, with remarkable unanimity, have endorsed the farmer's candidate, not so much because he is a farmer as because he is known to possess in an eminent degree those executive qualities which distinguish a first class executive officer. With this support and the endorsement of nearly every Republican paper in the State his nomination is reasonably sure. Once nominated he will be most emphatically the candidate of the people wherever known, and as such we believe will receive a more popular support at the ballot-box than would any other man in the State. And now Bro. Armstrong, to make this good, your valuable services so kindly offered at such time, and in such a manner as your good sense shall direct, will be thankfully accepted. We have referred to the very general endorsement by the Republican press of the State, of Mr. Luce, and it is with great satisfaction that we find such endorsement based on the substantial ground of large experience, moral worth, and those inherent qualities of genuine manhood that command confidence and respect. The Grand Traverse Herald of late date has pronounced in favor of Mr. Luce in such decided and well-worded terms that we select its article from among the large number on our table. The article is so pointed and so true that we cannot forbear giving it entire: HON. CYRUS G. LUCE FOR GOVERNOR. In heartily seconding and supporting the suggestion of the name of Hon. Cyrus G. Luce, of Branch county, as the Republican candidate for governor of Michigan, the Herald only voices the sentiments and wishes of the Republicans of Grand Traverse. The Herald takes as a rule has but little to do with them. In the present instance it speaks for the party in this section of the State, and it does so cheerfully and very willingly. From a political, social, moral and business point of view Mr. Luce's candidacy presents many strong features. As a politician Mr. Luce is a true blue Republican, coming into that party from the whig party. While not making politics a profession, his counsels have been eagerly sought and carefully considered by his party, and no question has ever arisen as to his political orthodoxy. If at any time a difference of opinion has arisen as to men and measures, he has fearlessly and boldly taken his stand

for what he believed to be right and for the best interests of his party. Socially, Mr. Luce can meet the requirements of the high office of governor. Unassuming, quiet, dignified, but far from haughty or overbearing in disposition, he is a good representative of the self-made American citizen, that class to which Americans point with greatest pride. Morally, Mr. Luce stands without spot or blemish on his name. His has been a life carefully directed by the highest principles of honor and integrity, and his reputation is beyond reproach. In his business Mr. Luce is a fit representative of that large class of American citizens without whose well directed labors and ceaseless toil there could be no successful industry organized or conducted. A farmer all his life, he knows all the hardships, and all the happiness of a farmer's life. It was on the farm that he imbibed that independence of spirit that has characterized his later years, and it was there he learned that sturdy integrity that has so conspicuously marked his business and political career. Mr. Luce is truly and emphatically a man of the people. He is no theorist in his profession. As a farmer he is a practical, hard working man. He does not farm by proxy or for fun. It is his life work and his living. He is no theorist in business, or politics, or religion. Life to him is real life is earnest. His experience as a legislator and in public life and his knowledge of state affairs eminently fit him for the high position of governor of his State. Mr. Luce would be the people's candidate.

DEPENDENT CHILDREN. Many people of the State are not fully aware of the existence of the State public school at Coldwater and of those who are, probably not one-half have such exact knowledge with regard to its objects as is desirable. An item that we saw not long ago in some newspaper has called our attention to this matter. We have not the item at hand but as we remember it was a statement that some 20 children from an eastern city had been brought to Buchanan, this State, and in a very few days homes had been found for the whole lot. Our State school is an intermediate place, a temporary home, for children who have no homes or but very poor ones, and a better one that may be offered by citizens of the State who are willing to provide such to this unfortunate class of dependent children. In the dozen years since its establishment the demand for room at the school could not be supplied because homes were not found for those children who were at the school as fast as children were offered. We shall find no fault with another State for finding good homes in Michigan for its dependent children. But while we have such a large number of our own who must be cared for at the expense of individuals or other than their own parents, by the County or State, it is a great mistake to import children without we can be sure that we are importing better blood, and even then it is of doubtful policy. The readiness with which 20 children were placed in a single County goes to show the need of a general and definite knowledge by the people of the ability of the State Public School at Coldwater, to supply children to parties who can furnish good homes for such. All applicants for children must have the endorsement of the county agent of the State Board of Corrections and Charities. Nearly all the counties in the State have such an agent. Persons desiring a child from the State school should apply to the superintendent John N. Foster, Coldwater, or to the county agent of the county in which the applicant lives. In some future number of the VISITOR we shall give more of the history of this State institution. ONE of the finest magazines we have seen for some time has come to our table in the form of a new monthly, the "Descriptive American." It is a superb piece of work, both in contents and workmanship, the engraving and clear cut printing, being done on first-class, large page paper, and the arrangements are in the best of taste. The June number is the second of the kind issued. It is the design to devote each number to some particular section, state, or territory, and give the entire paper to that subject. The first number covered Colorado, and the June issue is descriptive of Dakota. After reluctantly turning the suggestively designed cover, we find an index map of that "Golden Grain Garden of the Globe," (as Dakota has been termed.) It is made on the scale of twenty miles to an inch, is of the latest date possible, and fine in every particular. The space will not permit an extended review of the thirty following pages of articles which treat on Dakota in her natural formations, her boundaries, divisions, geology, zoology, botany, and agricultural resources; of her main cities and towns; her great farms; her leading men; her industries and her educational progress. Enterspersed among these pages are a dozen fine illustrations, including views of the "bad lands"; scenes on Devil's Lake, and portraits of General Beadle, Superintendent of Public Instruction in Dakota, and of Jay Cook, late President of the Northern Pacific R. R. The next issue of "Descriptive America" will be a Michigan number, and if it meets the standard of the Dakota paper—as it promises to do—it will be deserving of wide patronage among the people of this "noble State" to say the least. Single copies may be obtained at 50 cts each of "The Campbell Printing House" No. 15 Vandewater St., New York City. The price for a years subscription is \$5.00.

POSTAL JOTTINGS.

Really, Brother Cobb, was there need of the scolding you gave in VISITOR June 15?

We thought every number of THE VISITOR replete with good things and mostly origin I too. Bro's Hill and Strong lifted our thoughts to the stars, and while we were puzzling our brains to know who was right, Bro. Hill drops a "Jotting" on "The improvement of the human race." That comes within the scope of our comprehension. Is there not something connected with editing a paper which develops, and brings into undue prominence, greed; they not only want enough to fill the paper, but the waste basket also. No one needs scolding but the young people, and it won't do them any good, they are wedded to their idols, or are enjoying what the Italian would call *Dolce far niente*.

The Fourth was duly celebrated. Hay has been secured in fine condition. Wheat harvest has commenced; corn is promising; potatoes going into market at \$1.00 per bushel. The Grange is alive and lively.

Each time a new VISITOR comes we find something which calls for hearty response, and we see dimly through the necessary work, a few moments for pen and paper; but so many accidents come in we have to forego; but what matters, since there are so many who know how to say the right thing at the right time, as did Bro's Hill and Wood on the subject of the "Improvement of the human race?" We are especially glad this subject has been broached by men, for the whole responsibility rests upon the male gender. Bro. Hill asks, (May 1) "When will people show as much wisdom in raising human beings, as they do now in the improvement of their cattle and horses?" We change people to men and ask when nine tenths of the wives have no option, but to be subject; were it not so, we would not so often see a frail woman raising a family at the rate of three to every five years; does she do so from choice? The answer can be found in her sad countenance, and weary languid air. These husbands are frequently referred to as adoring their children, and worshipping their wives. The dear Lord—we say it reverently—protect us from such worship. We are not afraid of Mrs. Grundy, but will answer this when from our stand point. When husbands respect their wives enough to be sought and not to seek. Let the wife decide when she is to become a mother. Let men who desire to become fathers fit themselves for the God given honor, by putting away any filthy habit, and treat their wives with kindness and consideration. When men do this the millennium will have dawned, and we shall have less desire to be an

OLD MAID.

"A Backwood's Inquirer" asks for a few hints as to making a Sunday school interesting.

The main point to be aimed at for this purpose is to gain and keep alive to the work the sympathy of the older members. The children will respond to the slightest manifestations of interest in the elders, always.

One of the surest methods, toward which old and young are drawn, is the frequent introduction of some new plan or exercise presented in a novel way. Suggestions for such programs, including slips of responsive reading, recitations and blackboard work may be obtained of any Sunday School publishing house.

Allow me to recommend a plan I have seen on trial during the past year. During each quarter into which the lessons are divided, thoroughness is striven for by constantly reviewing, until the last week of the quarter, when new leaves are substituted for the tedious "reviews." These fresh leaves contain a temperance lesson, and as it is a change, and the lesson entirely new to the pupils, the school seems to take readily to the innovation and warm, hearty interest has been the result, making our temperance days waymarks of progress.

We have secured a printed "blackboard" from David Cook, Chicago, for one of these days, that was full of interesting suggestions. The review day a few weeks ago was kept both as temperance and children's day; profuse floral decorations and additional appropriate music being supplemental to a temperance program. The extra work required to prepare for this, was done with an eagerness and willingness that showed true interest, and will prove an encouragement to revert to, in less favorable times.

The main feature to be remarked upon in regard to these meetings is the fact that everything in the way of exercises is furnished by members of the school; for instance, every Sabbath, whether temperance day or not, the general summary of the lesson, remarks, or exercises, bearing upon the subject, are given by older pupils and teachers who take it by turn.

It will not be out of order to inform former members of our Grange, who have removed from Corey, and others who may be interested, through the VISITOR, as to our condition as a Grange. We are thriving, have added seven members to our number this

spring and think more will follow. Although our number is small we are strong in the precepts of our noble Order.

We hold meetings once in two weeks and expect the Pomona Grange at our place in September.

Crops are looking well with us at present; the prospect for fruit does not appear very flattering, the frost having hurt our apple crop to some extent. It is about time for the presidential election and I expect the full number of stump speakers will soon be around telling us how we must vote to prevent our glorious republic from going to ruin; but just remember this, Mr. Politician, we must have a farmer for governor in Michigan this fall, or the woods will be full of independent voters. D. H. P.

Corey, June 25.

In reading the VISITOR I saw a sketch concerning Olive Grange, which I have been looking for a long time; I feel very much interested in the Grange work, and more in the interest of Olive Grange than any other because I was a member of it several years. There have been some fears of its going down. I did not feel as if it could in such a good cause. I am so glad to hear it has taken a turn upward again, and hope it will continue to do so. When I was attending the Olive Grange I tried to do all my duty as far as I was capable. There is no Grange in Monroe county that I know of. They have a large Farmers Club in Petersburg.

Wheat is not very thick and heavy but promises a good yield. Some pieces of corn look very good, other pieces look pretty hard, where the wire worm is at work. Potatoes look well but farmers have to fight the bugs to keep them from eating them up. Gardens look first rate. Apples are not very plenty, likewise small fruit. The farmers are done haying and others are in their wheat harvest. It is quite a growing time; we are having frequent showers. I hope our correspondent of Olive Grange will write oftener for I feel very much interested in its welfare. H. D.

Petersburg, July 16, '84.

Our republican politicians are enthusiastic for Luce for Governor, and so far as I know will cordially endorse Woodman for Congress. I think the purpose a la table one and should be pleased to see our class better represented in Congress and the State legislature.

Class legislation has already been the bane of all government and has been but little better than monarchy. In fact it looks extremely doubtful whether we can ever have a free and fair ballot so long as the saloon holds the balance of power. It does not surprise me that the republican convention at Chicago ignored the temperance and suffrage questions, when the leading men of the party often "take something to do them good," and when a train load of California wine drinkers came to Chicago "on a bum." Whiskey rule suits such men best. A stream will never rise higher than its fountain.

We are cutting wheat. The platform binders are giving good satisfaction as I am informed. Grass made a great crop on our lands this year. We have drawn 42 loads of timothy hay from eleven acres. G. H. Porter, Cass Co., July 8th, 1884.

Shallow ploughing of corn on the prairies, where the sub-soil is so hard that the ground is only broken four inches deep, may be advisable; but upon our deep, porous, Michigan sub-soils deep ploughing will produce the best results. If the ploughing is deep, and continuous during a dry season moisture will be absorbed by the soil, and the more the feeding roots are severed by the cultivator, the more numerous the little spongioles, or little hairlike feeding roots, which will spring from a wounded root, and permeate the finely pulverized soil within 36 hours if such soil contains any moisture. If large roots are allowed to cross the rows, and these roots are broken in a dry time, the crop will be ruined, but deep ploughing when the corn is small, and constant cultivation through the growing season will make the best corn. W. A. B.

The weather for some time past has been very favorable for growing crops and farmers begin to feel well. Last Monday most of them commenced cutting their grass and on Monday p. m. it commenced raining; now some of them look blue. If this weather continues long it will spoil a great deal of hay, of which there will not be more than will be needed. Corn, potatoes and oats doing well with potato bugs on the increase. St. Joseph county Grange will hold its next meeting at Oakwood Thursday July 31st and it has been determined to hold a picnic on the river where they held it last year on the 14th day of August. Hon. J. J. Woodman is expected to be with us on that occasion. I visited Upper Navic a week ago last Saturday eve; had a good time. They conferred the 4th degree on 17 members. W. M. R. LANGLEY.

The Fourth of July, the day of the spread eagle, fire crackers and toy pistols. All honor to the revolutionary heroes who defied English despotism. But it is a painful reflection that governmental evils can flourish on American soil. The theory of Republican government is to secure the greatest good to the greatest number. But now, as in slavery times, the rule is reversed, while the good granted to the privileged few is only apparent and not real.

It seems impossible for the government to secure justice for the masses. They are secured in the right to the pursuit of happiness while they are denied the means and conditions of happiness. For instance, the House of Representatives has declared millions of acres of land forfeited by the railroads, but this simple act of justice to the people cannot pass the Senate, our august House of Lords. But still we celebrate. GEORGE ROBERTS.

Three or four Republican lawyers are anxious to represent this 4th district in Congress. Two of them at least are chronic office seekers and have managed to keep themselves in office most of the time for the past twelve years, still they are not satisfied, but are canvassing the district making liberal promises to local wire pullers and furnishing funds to pack caucuses and secure delegates. There are several farmers in the district as competent as any of the lawyers to represent the people, but who will not resort to the questionable means used by lawyers to obtain the nomination but depend upon the voluntary action of the people, who should realize the importance of nominating a farmer if they expect to succeed at the polls. If the political managers defeat the nomination of a farmer and we must have a lawyer, it seems to be our duty to vote solid for the return of the present incumbent. REFORMER. Dowagiac, July 5th, '84.

In this section, wheat is about ready for harvest, and the yield and quality will be beyond the expectations entertained in the spring. Corn, where the seed was good, bids fair to be a good crop. Hay is excellent and mostly secured in good order. Bengal Grange last week conferred the fourth degree on seven new members. All the young people, as soon as they are old enough, join the Grange. It is the best society we have. It takes the place of the school and the church. Business habits are formed, confidence inspired, talent developed, good morals, easy manners with virtue and sobriety, are taught, so that our interest does not lessen nor our numbers diminish. Six years ago, you could not have hired a member from this Grange to write an article for the VISITOR, now there are three regular correspondents, Sister Joshua Brown, B. O. F. Plowman, and myself. Name another Grange in the State, if you can, with a little talent as we have, that furnishes more correspondence for the VISITOR than Bengal Grange. And all this talent if it is worth any thing, has been developed by the Grange. CORTLAND HILL July 7, '84.

To the members of Lake Shore Grange we must say "Beg pardon" for we did not intend to let the GRANGE VISITOR of July 1st be published without an account of the pleasant meeting of Allegan county Pomona Grange with you on June 18th and 19th. But, on account of the busy season of year, the time passed away and before we knew we were too late for publication. It was the scene of a pleasant gathering of Patrons from all over the county, some driving over fifty miles to attend and we can safely say that all felt amply repaid for the effort. Pomona received so cordial a welcome and was so splendidly entertained by Lake Shore Grange that we feel again like thanking them, also the choir who furnished such fine music. On the afternoon of the last day we listened to some very fine essays, recitations and papers. To make a long story short we had a very interesting meeting. Our next regular will come in October and will be held with Gang's Grange. H. E. S.

The wheat harvest is near at hand. A two-thirds crop is expected, oats, corn and potatoes are looking well. Potato bugs more abundant than ever. Blind moles and cut worms have done much damage. May frosts destroyed most of the fruit. Peaches, plums, pears and apples almost a failure, apples excepted. Politics is being sown now all along the byways and hedges, that much good may be done in the name of Greenback, Republican and Democrat godliness, and orisons are going up daily for the success of each of them. If it can be shown that Worthy Master C. G. Luce is a live, determined, working temperance man, a genuine saloon killer, as well as a good Granger, why, let him be nominated right away quick; we want such an one for governor. T. N. TRAVIS. Summerton, July 7.

In THE VISITOR for June 15th, C. B. Ward, of Orland, Ind., asks: What is an antidote for cholera in chickens? This will do the business: For 40 chickens, stir two tablespoonfuls of kerosine, in one and a half quarts of dampened corn meal; add one teaspoonful of sulphur, feed every morning and the disease will soon diminish. He also asks: "What is good to keep plant lice and bugs from cucumbers, squash and melon vines." Put your chickens (even if they have got the cholera) among the vines, it is a sure way to get rid of these pests, and is also a benefit to the chickens. July 8, 1884.

[We don't think very favorably of this chicken cure for the striped bugs. Chickens are a good thing, but chickens or poultry of any kind used to assist the gardener is a dangerous experiment. Send to Bro. W. H. Gardner, Moline, All-gan Co., and get some "Slug Shot" and you will find it safer and surer than chickens to protect your plants from all kind of insect depredators.—EDITOR.]

I would like to know where this nation is falling to, when it gets so that a city like ST. JOHNS, can not celebrate its birthday, simply because it would not allow its rum sellers to sell that demon drink, on that day; without the aid of the rum sellers money the required amount can not be raised, and the city has given up and says: "No celebration this year." I think if cities can not celebrate the glorious 4th without the aid of strong drink, they had better do as ST. JOHN'S has done. What we want, and what we need, is a law prohibiting the sale of intoxicating liquors except for mechanical and medical purposes; will there ever be such a law? O. F. P.

Clover is mostly in the barn in good order, and weather permitting, the timothy will be cut this week. I expect to commence harvest the 14th inst. Corn is backward.

In the last VISITOR, either the types or my manuscript made a blunder. Let me repeat the test for sulphuric acid in sugar or syrup. Dissolve the chlorate of Baryta in water, put a teaspoonful of sugar or syrup in the test tube and fill up with water. Shake till it is dissolved, then put in to the tube a drop or two of the solution of Baryta. A cloudy appearance shows that there is sulphuric acid and glucose. A. FORD, M. D. July 7th, '84.

A NEW STRAWBERRY. Mr. Levi Taylor, of Climax has raised a new strawberry, which he calls "The Climax Seedling." It is a large cone-shaped berry, of a deep red color, inclining to purple; its flavor is of first quality. Some of the old citizens say that it is as sweet and pleasant as that of the wild strawberry. The vine is vigorous, growing over one foot high, and in seasons of late frost serves to protect the berry from injury. It is a late berry, and Mr. Taylor says, has brought the highest price in market this season. V. B.

An independent man must often go it alone. I suppose there are a number of city dudes that wish to be Governor of this State, and are getting the convention in shape to put them there. I shall not wait for them this fall, but have concluded to vote my own ticket for Gov; it will read like this: For G. Venor, C. G. Luce. How do you like it? If you or any other farmer are independent enough, put your name along side of mine. JAS. MCDIARMID.

There is really in nature such a thing as high life. A life of health, of sound morality, of disinterested intellectual activity, of freedom from petty cares is higher than a life of disease and vice, and stupidity and sordid anxiety. I maintain that it is right and wise in a nation to set before itself the highest attainable ideal of human life as an existence of a complete gentleman. Fine weather, all busy harvesting; find wheat much better than we expected, more kernels in a head and of better quality than for several years. If we succeed in getting it secured well it will pass No. one and make farmers feel well. W. M. B. LANGLEY. St. Joseph Co., July 10, '84.

Although the cutworms thinned some pieces of corn, there is a fine prospect at present for a good crop. Wheat is a medium crop, better than was expected in the spring. Apples are falling off some, but there is a fair show. Peaches none, and the trees are crippled. Cherries are enormously abundant, and yield of small fruits good. G. L. S. Constantine.

Literary Notes From the Century Co.

MR. FRANKLIN H. NORTH, author of the recent article in THE CENTURY, on "Sailor's Snug Harbor," has written for the August ST. NICHOLAS an account of the Central Park sheep and their four footed guardian—the Scotch collie-dog "Shep." This paper is illustrated chiefly by J. A. Monks

Selections. Judge a daughter by her mother. Happiness is not quantity but quality. What makes life dreary is the want of motive. Silence is the severest criticism.—Charles Buxton. When love must stop to reason, its departure is near at hand. Dependence on others is a bad breakfast and a worse supper. The most shallow person dislikes to be told that any person can gauge his depth. One can be a fool with much wit, and one need not be a fool with very little wit. Every power we have may be made to help us in any right work, whatever that is. There's nothing like a young child for bringing people round to a healthy state of feeling. Everything that totters does not fall but it is unsafe. Every moderate drinker is a totterer. The heart that is soonest awake to the flowers, is always the first to be touched by the thorns. Life is rich just in proportion as the imperishable and spiritual things control its ripened activity. The largest church bell in the world is the "King of Bells" at Moscow, weighing 443,732 pounds. Married life should be a sweet, harmonious song, and like one of Mendelssohn's, "without words." Let us try simply to do right actions, without thinking of the feelings they are to call out in others. Adversity is the trial of principle; without it, a man hardly knows whether he is honest or not. In matters of conscience, first thoughts are best; in matters of prudence, last thoughts are best. God can make the grief a grace, the burden a blessing, and light up the disappointment so that it becomes the torch of hope. Pailanthropy, like charity, must begin at home. From this center our sympathies may extend in an ever-extending circle. Puck is the main spring of human power, and the one quality lacking to success where failure is written on many a well begun battle. Do not underrate your ability to achieve success in a noble undertaking till you have fully tested your powers of action and endurance. It is well to know what were the chains of daily domestic habit, which were the natural leading-string of our forefathers before they learned to go alone. There are some great troubles that only time can heal, and perhaps some that can never be healed at all; but all can be helped by the great panacea—work. Love does not aim simply at the conscious good of the beloved object; it is not satisfied without perfect loyalty of heart; it aims at its own completeness. It will be very generally found that those who sneer habitually at human nature, and affect to despise it, are among its worst and least pleasant samples. No holy or self-denying effort can fail to the ground vain and useless; but the sweep of eternity is large and God alone knows when the effect is to be produced. In the lottery of life there are more prizes drawn than blanks, and to one misfortune there are fifty advantages. Despondency is the most unprofitable feeling a man can indulge in. Nothing is more expensive than penuriness; nothing is more anxious than carelessness, and every duty that is bidden to wait, returns with seven fresh duties at his back. There are one million men in this country who deem themselves capable of managing the affairs of State, notwithstanding they are utterly unable to manage their own tempers. God makes the earth bloom with roses, that we may not be discontented with our sojourn here; and he makes it bear thorns, that we may look for something better beyond. Whoever pays a visit that is not desired, or talks longer than the listener is willing to attend, is guilty of an injury that he cannot repair and takes away that which he cannot give. "Look," said Lord Chesterfield, "in the face of the person to whom you are speaking, if you wish to know his real sentiments, for he can command his words more easily than his countenance." The study of literature nourishes youth, entertains old age, adorns prosperity, solaces adversity, is delightful at home, unobtrusive abroad, deserts us not by day nor by night, in journeying nor in retirement. A thousand ears can extract the joy of music from a church organ, but few are the hands which could bring forth the same. So of the sermon. The ear drinks it in, but the fingers, in too many instances, never deal with it in practical life. The road to success is not to be run upon by seven-leagued boots. Step by step, little by little, bit by bit, that is the way to wealth, that is the way to wisdom, that is the way to glory. Pounds are the sons, not of pounds, but of peace. I do not call reason that brutal reason which crushes with its weight what is holy and sacred; that malignant reason which delights in the errors it succeeds in discovering; that unfeeling and scornful reason which insults credulity. There is always something aggravating in being told that the mood in which we are now viewing things strongly will not be our mood at some other time. It implies that our present feelings are blinding us, and that some more clear sighted spectator is able to distinguish our future better than we do ourselves. A. J. BAKER. Lecturer.

Lecturer's Communication—National Grange, P. of N.

SUBJECT FOR AUGUST, 1884.

Question 65.—How can we best educate the sons and daughters of the farm for practical farmers?

Suggestions.—This question should solicit deep thought from every Patron. A practical education given to a child may be of much greater value than a large fortune, for the former will abide and can be turned to usefulness at any time, while the latter may depart—take unto itself wings and fly away. It is reasonable to suppose that the most practical education for those who are to be farmers would be a collegiate agricultural course, but as so few out of the hundreds of thousands of the sons and daughters on the farm will have the opportunity of attending agricultural colleges, we shall apply the question to the common schools of the rural districts, where a vast majority will end their educational opportunities. Should not agriculture be taught in these schools, so that the boys and the girls who are to be farmers in the near future, may in early school days learn something practical and of value? Teach them the use, care, and diseases of the domestic animals; the nature and condition of soil; the various modes of culture; habits of insects; in other words should we not introduce into these schools the elementary principles of scientific agriculture, which would be a more practical education without any additional cost? Teach agriculture, political economy, and the affairs of government, then we educate to some purpose. Why not so amend the school laws and school system, and introduce in our public schools text books and studies that will educate the sons and daughters on the farm to some purpose—something practical and more useful than has been done in the past? Teach agriculture in its best, important, and usefulness; teach political economy in its true sense; teach the affairs and science of free government, clearly and well defined. Then we will educate our children to some purpose for useful citizenship, and as practical agriculturists. If our free institutions are to be perpetuated, the rising generation must be educated to fully understand free self government. Mr. W. T. Stead will contribute a paper on Chinese Gordon to the forthcoming CENTURY. Mr. Stead is a personal friend of the eccentric general, and therefore writes with full knowledge. The moving force in the world's affairs is now what it has been in all past centuries, thought, and this is a power that has development with use, a potency increasing in effective force as it is applied with specific purpose. Its development may go on almost without limit, and its potency will increase as growth pervades the masses of enlightened nations or peoples. NOTICES OF MEETINGS. Eaton County Pomona Grange will hold its next meeting at Sunfield Grange hall, Wednesday, July 23d, 1884. J. SHAW, Secretary. The next meeting of St. Joseph County Grange will be held at Oak Wood Grange hall July 31st, 1884. A cordial invitation is extended to all fourth degree members. MARY A. YAUNNEY, Secretary. The annual Harvest Feast of the Livingston County council will be held in Howell Grange hall, Tuesday, Aug. 5, 1884. Festival at noon. The intellectual feast in the afternoon will consist of music, essays, select readings, etc. A pleasant time is anticipated and a cordial invitation extended to all Patrons. Mrs. W. K. SEXTON, Secretary. A regular session of Van Buren Co. Grange will be held at Keeler, Aug. 7. The following program will be presented: Essay.—Life as a School; Mrs. C. E. Robinson. Essay.—Economy; Mrs. H. K. Nooney. Paper.—Edwin Day. Essay.—Mrs. Chas. Larkins. A lecture will be delivered in the evening by A. N. Woodruff, Worthy Overseer of the State Grange. The afternoon and evening sessions are both public; a cordial invitation to be present is extended to all. JASON WOODMAN, Lecturer. Pomona Grange Meeting. The last meeting of Hillsdale County Grange will be held on the first Wednesday in August (August 6th.) at the Grange Hall in Jonesville. All fourth degree members are invited. The programme will be as follows: Music by the Choir. Select reading—Sister Flora Teel, of Jonesville. Essay—Sister Anna Irving of Wheatland. Song—Mattie Monroe of Fayette. Recitation—Brother D. Crebert's daughter. Select reading—Sister M. Shepard of Allen. Questions for discussion—"Economy on the Farm," opened by Bro. J. Whitney of Allen, followed by Sister T. W. Benedict of Litchfield. "Economy in the House," opened by Sister E. C. L. Mumford of Moscow, followed by Bro. D. Crebert of Mosherville. Music. A. J. BAKER, Lecturer.

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Horticultural Department.

Lo! the world is rich in blessings— Earth and ocean, flame and wind Have unnumbered secrets still To be ransacked when you will, For the service of mankind; Science is a child as yet, And her power and scope shall grow, And her triumphs in the future Shall diminish toil and woe— Shall extend the bounds of pleasure With an ever-widening ken, And of woods and wildernesses Make the homes of happy men.

Meeting of the State Society, at Bay City.

The summer meeting of the State Horticultural society was held in Bay City June 19th and 20th. It was the first meeting of the society in Saginaw Valley and probably from want of advertisement and owing to the hot stormy weather the local attendance was small. There was an exceedingly fine display of strawberries and the papers and discussions were of more than usual interest.

The attention of the people of this part of the State is chiefly devoted to lumbering, and its value for the production of fruits and vegetables is fast beginning to be discovered. The soil near the bay is peculiarly adapted to the production of vegetables and small fruits. I never saw a market supplied with fine strawberries in greater abundance than Bay City is.

The first half hour of the meeting was devoted to reports of the fruit prospects. Peaches and grapes in the Saginaw valley are still a failure. Apples and pears promise well except varieties in blossom at the time of the frost late in May. Strawberries, grapes and other small fruits are injured in the South eastern part of the State. In Berrien county there is complaint of apples dropping badly. At South Haven fruits of all kinds promise well except the tender roots of blackberries. No other locality reported a prospect for peaches. Apples appear to be a fair crop throughout the State.

The secretary criticised the present methods of preparing the State crop reports, and described a method in use in California in which the prospect is compared with the preceding crop in the given locality.

He called attention to the desirability that the society should make an exhibit at the world's fair at New Orleans which opens in December but no provision had been made for the purpose.

The society offers \$1,200 in premiums for fruit at the State Fair to be held in Kalamazoo.

President Lyon urged the co-operation of all interested in horticulture in the revision of the fruit catalogue to be made the coming year. He will gladly furnish copies of the last edition to any who will mark any changes which seem required.

The first paper was by J. N. Stearns of Kalamazoo, on

STRAWBERRY CULTURE.

I prefer a sandy loam thoroughly freed from weeds and grass. Pulverize thoroughly, then make compact and firm. Ashes are the best manure. Barnyard manure if used at all should be applied the year before. Cultivate in matted rows about 18 inches wide and 3 1/2 feet apart, and as long as possible, so as to use a horse to best advantage. Cultivate thoroughly the first season, and not at all the following spring. Mulch the whole surface after hard freezing in the fall, and rake between the rows next spring. The varieties I prefer are, for the general market, the Wilson; for a near market, Crescent; for house use, Chas. Downing.

Pres. Lyon spoke on the application of science to strawberry improvement. Artificial crossing is the most effective means of improvement. Start with a variety which has fixed and well marked characters. Choose one that with the qualities you wish to improve has its others evenly developed. The constitution and other qualities of a new variety depend not only on the parents but largely on the cultivation given while young. The unusual success of Mr. Dowler of Kentucky in producing valuable new varieties is doubtless due largely to climate. Mr. Hathaway, of Little Prairie Ronde is producing some valuable varieties, notably the Bidwell. His plantation of seedlings possess wonderful vigor. There was some complaint by those present that the Bidwell failed to ripen at the tip. Prof. Beal said that cultivation and a change of soil might not improve a wild plant, but that seeds from such would be likely to give varieties some of which would be valuable. Removing the stems of a "perfect" sort and crossing by hand will prevent the tendency toward pistillate varieties which exist when one of the parents is pistillate. It is possible by crossing and selection to bring about almost any desired change, but as we approach perfection it becomes more and more difficult to make further improvement.

In crossing plants the product often resembles one of the parents more than the other. Avoid crossing varieties in which marked, defect exists in both. Unless we can have va-

rieties which are self fertile it would be better to have a purely staminate sort to supply the pollen. Jas. Troop described a new strawberry pest which had appeared at the college.

C. M. Weed read an interesting paper on "The food of young birds." He has been examining the stomachs of a variety of young birds and finds them to contain almost nothing but insects—chiefly injurious. Animal food seems more necessary for young birds than for old.

Birds probably eat more before leaving the nest than all the rest of their life, and because the old birds take a little fruit now and then we should not forget that the enormous amount fed to their young consists almost entirely of insects. Many present complained of the destructiveness of robins to fruit. They have a bad habit of passing from berry to berry and biting them without eating.

Professor Cook described the new insect enemy which has created so much excitement in this part of the State. It is a species of cut worm sometimes called black slug worm. It is not a new insect but has never been numerous enough to be troublesome before. It feeds on almost everything. It feeds only at night. The professor found them at midnight so numerous that a hundred would be killed at a single step. Of course where there are so many, poisons are of no avail. It is not probable that they will be troublesome more than a year or two.

SWEET CORN.

This topic was led by Prof. Tracy of Detroit. The conditions required for sweet corn are the opposite of those required for field corn. It requires a colder climate and a soil less rich in vegetable matter. Potash fertilizers should not be used but phosphates instead. Barnyard manure if used at all should be well rotted. This country is specially adapted to the production of sweet corn and there is no garden vegetable more important. No where else unless it be in Italy does it grow to such perfection.

There is no vegetable so much affected by a change of climate. The cultivation for two or three generations a few hundred miles either north or south produces changes equal to a new variety. A change of soil greatly affects the growth of the individual plant but has little or no effect on the tendency of the variety.

It is very easily affected by crossing, and for the first season a new variety thus produced comes true to name, but afterwards it cannot be depended on.

H. W. Davis, of Lapeer, gave his experience in growing and evaporating. Sweet corn is more difficult to germinate than field corn. On the average but little more than half the kernels grow, more seed should therefore be planted in a hill. Don't be discouraged if it does come up poorly, for if well cultivated even one stalk in a hill will produce several ears.

Fall varieties like the Evergreen, Mammoth and Egyptian are the sweetest and best and should be planted at least four feet each way. The corn should be picked as short a time before evaporation as possible. Steaming the corn cooks it quicker and leaves it sweeter than boiling. When the corn is half dry it scorches easily and should then be placed above the rest to finish off.

"Horticulture for city people," "The Household and Garden," "Rose Culture," "Utilizing Fruits," and the "Use and Abuse of Water in Horticulture," were some of the other topics.

Insects.

To all those who are interested in raising peaches we would like to ask a few questions, and we wonder why there has not been some enquiry made before, in regard to the peach trees in this part of Kent county, why the leaves curl and pucker up, and then after a time fall off. It is only a portion of the leaves that do this way that we have noticed; although we have heard of all the leaves dropping off.

In the latter case the tree generally dies. Our trees have been set three years, they have made a good, vigorous growth; the first year we did not notice any curled leaves, but last year and this year they have been quite bad. Some trees are worse than others. Last year they began to recover after the 15th of June, this year about the 8th of June, the leaves commenced to curl and pucker as soon as they were out large enough. We have examined the leaves as close by as we could very many times; could see no insect of any kind on the leaf, except an innumerable number of flies about, not more than a quarter of an inch long, with slim body, one pair of silky wings with a little black on them, a small head, looks much like the house fly's head, legs rather longer than the house fly and seem to be hairy or fuzzy, for they hang to the leaves, let the wind blow ever so hard. The color is black on the back, and a little light on the under side. Why I describe this insect so closely is because we think he is the fellow that does the mischief with our

peach trees. Our trees are all right until they come, and grow worse while they stay, then when they are gone, the trees recover. Of course where the leaves have fallen the leaves will not grow again this year, but other leaves and branches continue to grow. Some branches grew last year two feet after the insect left our trees. This year they have made a growth of six or eight inches at this writing. For this reason, we do not think the trees diseased. Some leaves are only specked with a blister or curl and seem healthy while others are puckered up in all shapes and grow to be twice their natural size before they drop off. Then sometimes we see small twigs wilt and drop; these, we think, have had the juice sucked out, but perhaps we are mistaken. If we had had a microscope we think we could have told whether this insect possessed the faculty or an implement for sucking juice.

Would it not be a good investment for every Grange to own a good microscope? We think it would, and that it would be the means of making our Granges, more interesting. It certainly would widen our knowledge of insect and plant life. Now, as we have made one suggestion, pardon if we make another. It would be an advantage to the Grange to have a case of insects composed of those that are injurious and those that are our friends or those that prey on injurious insects. We, as farmers, are too ignorant on such matters for our own good.

Will some one describe the army worm? Do they attack apple trees, and if they do will they spin down with a gossamer thread? Some call the army worm and canker worm the same, are they? We hope to hear a reply from some one on these important questions; every one should feel interested in fruit growing.

AUNT KATE.

Grattan, Mich.

The Rose Slug.

CLARENCE M. WEED.

This pest is no new enemy to the queen of flowers, over fifty years ago it was given its scientific name of *Selandria Rosae* and described by Dr. Harris, in his classic work on insects injurious to vegetation. His description is as valuable to-day as then and is so accurate and clear that I will quote some of this article from it. It was then injurious to roses in Boston it is now very generally distributed over the country. It is a serious pest at Lansing and within a few days I have seen it working at Bay City.

The perfect insects appear in May and June lay their eggs on the leaves, and die. In a short time the slugs hatch and begin to devour the outer portion of the leaf, leaving the veins and ribs. When nearly full grown Harris describes them as having "a small round yellowish head, with a black dot on each side of it, and twenty-two short legs. The body is green above, paler at the sides and yellowish beneath; and it is soft and almost transparent like jelly. The skin of the back is transversely wrinkled, and covered with minute elevated points; there are two small, triple pointed warts on the edge of the first ring, immediately behind the head."

They eat about three weeks from time of hatching, then go in the ground, form a cocoon transform and in two weeks come forth as black four winged flies. There are two broods in a season, the latter passing the winter in the pupa state.

Remedies: Harris recommends whale oil soap, in the proportion of two pounds of soap to fifteen gallons of water. Prof. Lintner recommends the use of white hellebore in the same way as for its cousin the currant worm. Paris green or London purple are efficient, but may be dangerous. In a paper by John Irvine read before the June meeting of the State Horticultural society last week, the use of hot water, was strongly advocated from a standpoint of personal experience.

Agricultural College, June 23.

Where are the Roots?

While fruit growers are aware now that the roots of trees and plants extend to a great distance, still it is difficult to break away from the old habit of manuring about the trunk, trusting somehow or other the fertilizer will be appropriated, and fearing that if spread broadcast it may some way become lost. It will be found difficult to place manure in an orchard or vineyard where the plants will not reach it, and if properly spread it will not be lost. Should it sink into the subsoil the roots will follow it and bring it back by the ear as a teacher would a truant school boy. We have observed the roots of apple trees in sand pits extending downwards ten feet. The root growth is, however, different in other soils. We recently followed the roots of an old grape vine 20 feet under the location of a defunct building. When we stopped digging the roots were as large as a little finger, were four feet beneath the surface, and probably extended ten feet farther. A pile of manure about the base of this vine would have done but little good. Knowing the extent and habit of root growth, it is apparent that cultivation close about the trunks of the trees or vines is not necessary, and is often productive of more harm than good in marring and breaking, besides tempting profanity on the part of the plowman. Leave a narrow strip of grass along the row, say two feet wide, but keep the rest of the soil well cultivated, mowing the grass or weeds that

appear in the strip left. It has been found by careful experiment by Professor Beal that the cultivation within three or four feet of the base of a tree has no apparent effect on its growth or health, but cultivation further away from the trunk is highly beneficial. It is difficult to realize that the strawberry often has roots five feet long but it is a fact, the length varying according to the ease with which they can penetrate. Nothing is more important than to know where the roots lie on the plants and trees we cultivate, and knowing their habits to act in conformity therewith.

Canning Fruit.

All fruit used for canning should be fresh, but not over-ripe. Berries should be firm, and peaches and pears must be canned before they get mellow. It is not absolutely necessary to use sugar when canning. Granulated sugar is undoubtedly the best. Our rule is a quarter of a pound of fruit, but for currants and cherries we use a little more, and for peaches a little less. Put your fruit and sugar together in a porcelain kettle, adding a little water if necessary, cook until the fruit is boiling hot clear through, fill the cans full while the fruit is hot; wipe the top dry and put on the cover; screw down firmly, and as the fruit cools tighten the cover until it can be moved no further. If you notice any air bubbles in the can run a spoon down to them and let the air escape before you put the top on. To prevent breaking the cans, fill them with quite warm water until they are warmed through; then pour out the water, set the cans in a pan containing a little hot water and put in the fruit. Fruits that are apt to crush by much handling, will look better if cooked in the case. Fill the cans with fruit, pour over a syrup made by melting the sugar that you intend to use in some water—say from a half a pound to a pound of sugar to a quart of water—put on the glass tops loosely, set the cans in the wash-boiler with cold water enough to come within three inches of the top of the cans. Heat until the fruit is boiling hot, and then boil fifteen minutes longer. The fruit will settle down in the cans, then take the contents of one or two cans to fill up the rest, and seal up immediately. Do not set the cans on the bottom of the boiler. Get John to shape a board a little smaller than the inside of the boiler, bored full of holes an inch apart, and nail three strips an inch thick across the under side to rest on the bottom of the boiler. Set the cans on this board and they will be all right.

Canned fruit should be kept in a cellar or a cool milk house, but if you have neither, put in dark closet, in the coolest place at command.—Country Gentleman.

The Grape Vine in August.

Most of the active work of the vineyard is over, still the vines will need some care. The laterals may still need pinching, and late shoots may push where they are not wanted, and must be broken off. Most of the troublesome insects of this season are large, and readily noticed, so that the only remedy, whether for the large grape-vine caterpillars, or the beetles mentioned on other pages, hand-picking, can be applied. The chief troubles of the grape-grower of this month, are the leaf-hopper, incorrectly called, trips, and midew. The little insect, which in some places, rises in clouds as one passes among the vines, and appears of a general dingy white color as it flies, is, when caught and examined, found to be handsomely marked with scarlet. It remains attached to the leaves sucking the juice in its early life, and it is only when it gets wings that its presence is usually noticed. The only remedy that has been suggested for this leaf-hopper in its winged state, is to carry lighted torches among the vines at night. Midew appears in the dry, hot days. Pale spots are seen on the leaves, and if the underside of these be examined there will be found the gray patches of the minute fungus which causes the trouble. Sulphur is the remedy. This, upon the first appearance of the mildew should be freely and thoroughly dusted up on the foliage of the vines. Bellows for the purpose are sold at the seed and implement stores. The bellows are like an old fashioned kitchen bellows, and have a wide tube about an inch across. The valve hole is stopped by a cork, and the quantity of Flowers of Sulphur being placed in the body of the bellows, through this opening it is blown, when the bellows are worked, like a fine cloud of dust, which settles on the foliage, and soon puts an end to the mildew. The dusting should be done on a hot day, and two, or at the most three applications, will save the foliage, which otherwise would soon become useless.—American Agriculturist.

Effect of Sunshine.

From an acorn weighing a few grains, a tree will grow for 100 years or more, not only throwing off many pounds of leaves every year, but itself weighing many tons. If an orange twig is put in a large box of earth, and that earth is weighed when the twig becomes a tree, bearing luscious fruit, there will be very nearly the same amount of earth. From careful experiments made by different scientists it is an ascertained fact that a very large part of the growth of a tree is derived from the sun, from the air and from the water, and a very little from the earth; and notably all vegetation becomes sickly unless it is freely exposed to sunshine. Wood and coal are but condensed sunshine, which contains three important elements equally essential to both vegetation and animal life—magnesia, lime and iron. It is the iron in the blood which gives them the durability necessary to sustain vigor, while the magnesia is important to all of the tissues. Thus it is, that the more persons are out of doors, and the longer they will live. Every human being ought to have an hour or two of it, and in the early forenoon in summer.—Home and Science Gossip.

FEW AND WELL CARED FOR.

Two hundred strawberry plants, well cared for, will yield two bushels, as many as a small family will require for consumption.

Girdling Grapes.

It is well known that wiring or girdling grape vines, while it injures the vines, causes the grapes to grow larger, ripen sooner, and become poorer in quality. Some experiments were made at the Massachusetts Agricultural College in girdling surplus branches, which were to be afterwards cut away. A revolving knife cut rapidly a ring of the bark a fourth of an inch wide, just below the first fruit, about midsummer. This treatment was performed on twelve rows of grapes. The enlarged and early fruit sold for \$36 more than the same amount of the common or main crop, the labor being less than half this sum. No injury has been apparent to the vines so treated, the girdled canes being cut away when done with.

Blackberry Cordial.

Blackberry cordial is a home-made medicine of much value during August as a remedy for diarrhoea. To one quart of blackberry juice add one pound of white sugar, one tablespoonful each, of cloves, cinnamon, nutmeg and allspice. Boil all together for fifteen or twenty minutes, take from the fire and add a wine-glass full of brandy or Jamaica rum. While still hot put in bottles with stout corks, and seal if not intended for immediate use. A tablespoonful three or four times a day is the usual dose, though in severe cases it may be increased to a small wine-glass full.

Layering a Rose Bush.

A writer in one of our agricultural newspapers says that a rose bush may be layered with little trouble, and then tells how to do it. Make a narrow trench, three or four inches deep where a good, well grown shoot can be cut a slit in the soil, in June point where it will touch the soil, press some soil into the cut, bend the cane down to the bottom of the trench and fasten it there with some pegs, and cover it well with soil. By fall it will be a rooted plant, and can be cut away and transplanted.

A Cheap Insect Destroyer.

A correspondent of the Fruit Reporter says he has boiled leaves and stems of tomato plants until the juice is all extracted, and finds the liquor deadly to caterpillars, beet, and many other enemies of vegetation. It does not injure the growth of plants, and its odor remains for a long time to disgust insect marauders.

"MAJ. HOLSINGER said his experience had taught him that trees will grow one-third larger and much faster if not trimmed."

Certainly they will—that is our doctrine. However, it is not best to defer thinning out the branches until they are so large as to cause an ugly wound when removed, if it is designed whether we do not try to help nature too much in shaping the heads of fruit trees. Different varieties of apples for instance have different habits of growth, but we try to make them all conform to one pattern, against which they rebel with considerable force. We incline to the opinion that if a tree is trimmed properly at planting (or the year after planting, which is in some respects better) all that is necessary is to cut away such branches as appear to be in the way of the team in plowing, and superfluous suckers. "But," say some, "you must let in the sunshine to the fruit."

Don't bother yourself about that. The leaves and soil about the roots need sunshine, and when they get plenty of it they will feed the fruit. It used to be thought that clusters of grapes must be exposed to the sun but such theories have been exploded. You can trust the tree to get all the sunshine possible if you give it room enough—all its leaves are struggling to reach it.—Green's Fruit Grower.

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Correspondence.

Grange Picnic.

In my last communication to you I said you would hear from us again; this time, not to let the readers know that our Grange still exists, but that we held a picnic, (as every Grange should) June 21, on the farm of our Master, John McKay. All the members, their families and a few guests were invited. The tables, set by the ladies, were more than loaded with all the delicacies of the season. It was very enjoyable for the little ones, who put in their time to the best advantage. We had music and several addresses which were much appreciated. Taken all in all, it was a very enjoyable day. In conclusion I will say to every Grange, "go thou and do likewise." Sec. Bruce and Armada Grange, No. 657.

Children's Day at Mt. Tabor.

At the celebration of Children's day held at Mt. Tabor, recently, Mrs. E. Marsh gave the address of welcome to the little people. From the Michigan Independent, edited by J. R. Hill of Buchanan, and who is himself an ardent Grange worker—we extract the following from the pleasant address:

Mr. President, Little Ladies and Gentlemen— This is your day. In behalf of Mt. Tabor Grange, we bid you here a most hearty welcome. We have thrown our doors ajar, we have asked you to come in and be seated with us around our shrine and enjoy a festivity that is a new departure of the year 1884. My little ones, when you go home to-night ask your pa's and ma's how many Grange Children's Days they ever attended.

Now if I were to tell you that the Grangers were the best people in the world, you would want your folks to

join, wouldn't you? The better the person, the better Grangers they make; you have seen this in your day and Sunday schools or wherever you have met them, the older ones know this to be the case in the church, in the political arena, or in society in general, so we have invited all of the good little boys and girls to come and spend a day with us here, yes, we invited all for we knew there were no bad ones, or if there were they wouldn't come, for children wouldn't be bad if it were not for bad influences and bad teachings.

Now one of the things the Grange teaches is how to make a grander and nobler manhood and womanhood, and the very best way to do so is to take good children and always keep them good and growing better. Now that is another thing we do in the Grange, we grow our brains; we come here often, we sing, have music from the organ, have recitations, select readings, essays, speaking, etc., we talk about our business, if we know or hear of anything which will hurt us we tell of it, and help one another, and so grow better every day.

You may be great and deal better than we are, and here you are with your bright childish eyes all aglow, ready to sing and to speak pieces, with your good teachers ready to help you, and how many of you can remember when this hall was built, but you can come right in and enjoy it. You cannot remember the time we had to spend laying the foundation, but you can go right on with the grand work, for it is going right on. Will you come again and again and will you come to stay?

This welcome was responded to by Miss Haller, in these words:—

Mr. President, and members of the fraternity of Mt. Tabor Grange:—

Innovations seem to be a peculiar characteristic of the American people. For of such, each year presents its new and pleasing evidence. We as children have attended national, church, Sabbath school and political holidays; mass meetings, fairs, Christmas trees, etc. But we are to-day, the invited guests of a civic organization, whose banners are unfurled with the emblazoned inscription, the solution of the greatest economic questions ever presented. We in response to the welcome we have received, would say—we fully appreciate and realize that another innovation has been attempted—that a day has been set apart as a "Children's Day," and in view of which, we are here in all our youthful mirth and childish innocence, with song and declamation, to return your greeting. To you, veteran gray haired sires and dames, who in times past, rode to this lake bordered and river threaded Eden, in the old but not forgotten ox cart, who now step into palatial residences and leap over space like the wingings of time, accompanied by sound as of roar of tempest, or echoes of distant thunder, have you placed an estimate upon our heads? Are you willing to judge the future by the past?

Without stopping to review Robert Fulton's old time steam boat, or George Stevenson's clumsy old engine, or the Morse telegraph, as compared with the ways and means employed by your revered grandparents. Are you willing to enjoy with us the idea in the form of an air castle that when our hoary heads shall tell the tale of us, that it to day tells of you—that we "sheltered and screened in our God-blessed homes of a free country, by the employment of modern methods, freely converse from the Atlantic to the Pacific shore; or step from our doors into what might have the appearance of a huge India rubber overcoat inflated, and you have taught us to inflame our boys and cast them like some magic fairy, or the down of the distle to become the sport of the breeze, that a voyage across this, the grandest continent of the globe may be like a dream; with breakfast in New England, our dinner on the borders and our supper in the orange groves of California. But lest we weary you, we cease our dreaming.

May we ask you who have so long breathed the storms of life—Why, this day that you call Children's Day? Why, this pleasant and commodious building, this beautiful hall, with its emblems, and decorations of art? Why this library, that grand instrument, that has the power of enchanting its thousands when touched by a master hand? Why that altar that stands so boldly to our view ornamented with God's holy word, decked with nature's most enlivening blessing, those fair flowers? Why those tables loaded with such as would tempt the appetite of the prince of epicures? Why so many happy faces in such a festivity as this? Is this the motto of the Patrons of Husbandry? Are these the fruits of harvest toil properly husbanded? If so, tell us, and tell us why, and if so, open wide your doors and let us come singing, not like the "Yankee" 500,000 strong, but like the Medes and Persians numerically unknown.

Rural Life.

One of the indications of the growth of the genuine love of nature is the fact that people go into the country and stay in it more every year, not because a common custom impels them, but because they have a real appreciation of beautiful surroundings, of open sky, and the freshness and healthfulness of out-door life. It is noticeable that the season lasts longer and longer; that people stay away until the Fall weather has yielded to the blasts of a coming winter. There was a time not long ago when the tide of travel countryward was largely set in motion by fashion, but that time has evidently passed away, and Americans are coming more and more to the habits of the English, who make their permanent home in the country and go to the city for a few months of society. The return to nature, and to the love and appreciation of its beauty and simplicity, is one of the hopeful signs of the age; and if the earlier poets of the century had done nothing else, the fact that they have redirected the thoughts and affections of men to nature would be a service for which succeeding generations could not be too grateful.

The butter crop of Vermont is estimated to reach 27,000,000 pounds, half a pound for each man, woman and child, in the United States.

Communications.

Physical and Mental Labor.

It is frequently remarked by the illiterate, that the physical labor performed by man is inversely to his education—the more education received, the less labor performed.

Practical operations in the world's history have proven the falsity of such statements. They who have read of the decay of ancient States, and have witnessed the rise and progress of modern times, will be forced to acknowledge that the great distinction is owing to the advancement and intelligence made since those days of strife and tumult.

Mental and physical labor, must go hand in hand. A nation can not rise and make any great advancement in science, literature, and art, without giving a great stimulus to the whole people who, taking note of the reaction, will labor with great earnestness to accomplish more in wealth and honor than they did in the past.

Those of mental ability, are those who have executed the great worldly enterprises; who have connected the two great oceans with bars of iron, who have brought laughing lightning from the clouds, shown its identity with electricity, and sent it buzzing in the shape of messages, with indescribable rapidity across, not only the vast continent, but through the great Atlantic, uniting the two shores; and they are those who have sacrificed lives for the sake of discovery and the obtaining of knowledge.

Is it necessary that a man should be stupid or uncultivated simply because he is a tiller of the soil and has a few bushels of wheat to sell? Needs he to know no more? Finding the result of a load of wheat is extremely simple; yet many and many are the people who will boast of their being able to do it. They feel proud that they possess this small fraction of an education.

These same people will tell that they desire no higher attainments. If this minute particle of the great mass that makes up man's intelligence is so worthy of praise, is not that man inconsistent who says he desires no greater knowledge? He certainly is not satisfied.

Some can be farmers and have success in their occupation if they know simply enough to figure up the price of their load of wheat; and we know of a few, although striking exceptions, who have attained success without being able to read or write. But because these exceptional ones have succeeded, are we to lay it down as a rule and shall we take them as our guide? Because a few have been great philosophers, is it necessarily true that we will all be great philosophers? These few exceptional ones obtained their success by mere brute force.

The mind of man may be compared to a fertile spot of ground, which, when cultivated, produces the necessities of life; but uncultivated, produces weeds of every kind fit for nothing but to be trodden under foot. Since the mind is necessary for all professions of life, it is as necessary for the farmer to be educated to some extent, as it is for the lawyer, the doctor, or the merchant.

It is from the want of education that the farming community have been oppressed by the rod of tyranny. Why do men of all other professions educate their children? Because they know they can never be successful in their professions without an education. As has been stated, for want of an education, the farmer has been and is, a slave to professional men.

There is no good reason why the fact that a man is a farmer, should act against his acquiring an influence in society, equal to men engaged in other pursuits.

Still it is vain for us to ignore the fact that, as a class, our farmers do not wield an influence proportionate to their numbers, and the importance of the work in which they are engaged. Certainly it is not the fault of our calling. The dignity, we might say, the vast importance of agriculture, is becoming universally recognized.

Influence depends upon intelligence, and intelligence demands culture. Brain power will not be developed without the use of brain; nor will the brain be used effectively unless it is educated, therefore, the great reason why farmers, as a class, have not taken the position they ought to occupy is owing to their lack of education.

he does not like to see old rubbish, poor fences and tumble down sheds about his own buildings, but will contrive with all the ingenuity of man to arrange these objects that they will be convenient and pleasing to the eye.

The principle of economy should pervade every portion of our plans and executions.

If results can be arrived at more economically by means of a little mental exertion than by going at the work doggedly with mere physical force, would it not meet every one's approval?

We do not claim that a man can plow and drag any better than a dolt by having an education. But he can do as well and is far ahead in many other things.

The principle upon which we should place our foundation is not the amount of physical work a man can do but upon that firm and substantial basis of an educational system.

If agriculture expects to stand among the foremost occupations and assert her rights in the control of our governmental affairs she must be raised and maintained in that position by her sons and daughters.

People make the occupation, not the occupation the people.

Agriculture has long been known to be in the background of other callings. She is now gradually coming to the front. Why is it? Education is at the bottom of it, converting the indolent and slothful spirits into resolute ones. Education is breaking away the barriers, and showing the clearer light in the distance.

To show the fallacy of the beliefs of some, that the educated will not do physical work, I will give you this illustration. A weaving establishment was owned by a large company, who carried on such an extensive business, that they were compelled to keep, in continual employment, one hundred young ladies, some of whom perhaps had made the same employment their life work, hence were well acquainted with all its windings and peculiarities. They were paid according to the amount woven. It happened a graduate, newly arrived from college, awkward in work, became one of the employees. To weave rapidly it is necessary that the arms be of good length, but she was faulty, in that she had short arms. Ere a month passed away she had gained such complete mastery of the trade as to offer upon each presentation the largest amount of the best woven goods.

Thus it is in every employment, the intelligent lead. Though students of our agricultural college do very little physical work and are not toughened like laborers of the field, yet it is well worthy of remark that farmers in that vicinity announce their preference to the students' labor, claiming they will do more and grumble less than their regular employed month hands.

In conclusion, then, it may be said, and well, that the intelligent are the underlying elements in all advancement, the builders of society, the improvers of culture and the pillars of all enterprises for the good and well being of men.

RAY SESSIONS.

Does the Farmer Need an Education?

The mind of man may be compared to a fertile spot of ground, which, when cultivated, produces the necessities of life; but uncultivated, produces weeds of every kind fit for nothing but to be trodden under foot. Since the mind is necessary for all professions of life, it is as necessary for the farmer to be educated to some extent, as it is for the lawyer, the doctor, or the merchant.

It is from the want of education that the farming community have been oppressed by the rod of tyranny. Why do men of all other professions educate their children? Because they know they can never be successful in their professions without an education. As has been stated, for want of an education, the farmer has been and is, a slave to professional men.

There is no good reason why the fact that a man is a farmer, should act against his acquiring an influence in society, equal to men engaged in other pursuits.

Still it is vain for us to ignore the fact that, as a class, our farmers do not wield an influence proportionate to their numbers, and the importance of the work in which they are engaged. Certainly it is not the fault of our calling. The dignity, we might say, the vast importance of agriculture, is becoming universally recognized.

that we have too long adhered to the false opinion that no special culture or education was required to make a good farmer; no special brain power needed; no education required to make a man successful as an agriculturist. Hence it has too often been the case that the farmer, when choosing pursuits for his sons, was sure, if any one of them manifested more than ordinary mental power, to decide that boy was too smart to be allowed to waste his energies and bury his talents on the farm.

To illustrate, suppose you had a flock or herd, and you followed the plan of selling off every year the choicest young from that herd, how long would it be before you would have a poor flock? If you drive away from the farm all the noblest young men how long before we should have a poor set of shepherds?

As surely as farmers, either by words or acts, put such a seal of disapprobation upon their own calling, as to imagine that it does not require intelligence of the highest order to make a first-class farmer, or that first-class intellect is out of place upon the farm, just so sure will every enterprising, talented young man be driven out of the employment. They will not engage in any employment that does not require the exercise of intelligence and superior mental power.

The question to solve is how shall we attain this end? How shall we lay a foundation upon which future generations can build? We answer, by education. Educate the farmer and he will become a strength in the land. Give him an education so that he can count his own gains and losses. So that he can tell whether he is gaining or losing financially, then he will know what he is doing; but so long as he has to depend upon other men to attend to this business for him, he is likely to be defrauded out of his just dues. He does not know how to work to advantage.

We have many farmers who work hard and are strictly honest, yet they are going down hill financially. Why is this? An answer, for the want of education. Then to what extent should the farmer be educated? He should, if possible, have a complete English education, or at least a thorough knowledge of the fundamentals, reading, writing and arithmetic, so that he may make his own calculations and attend to his own business.

A farmer should also have a certain amount of literary education, that he may enjoy the pleasures of literature. A thorough knowledge of the rules of an art doubles the pleasure received from it. Education reforms the judgment, and improves the understanding. Tell me not then, that an education is unnecessary to the farmer.

Since God has so wonderfully blessed us, is it right that the farmer should be deprived of the privilege of enjoying those blessings?

It is wrong and it is injustice to our cause to argue that an education is non-essential to the farmer, for it is denying him rights and privileges. Do not double the cords on our hands, but let us strive to break them, and in so doing we will build up our own profession, and become a strength in the land.

Educate, and elevate. To civilize a people we must educate them, accustom them to think, and exercise their mental powers, till they obtain breadth sufficient to let a great truth in. Many farmers use their intellects so little, that they never expand wide enough to take a whole truth in at once, and they always have narrow views, for a portion of their truth is not the truth, but often times an error.

We must teach our children to read, and think as they read, to talk and think as they talk, to listen, and think as they listen. We must teach them to think more, study more, use their brains more. Nine-tenths of the reading done at the present day is simply emptying the contents of the book or paper into the mind of the reader, without any attempt at selection or assortment.

The consequence of such reading is, that the mind becomes filled with a pile of rubbish, and the little good that is there, is as available as an uncatalogued book in a great library.

When farmers think over and digest what they read, they will not be so readily led astray by designing demagogues, and this habit of thinking can only be obtained by careful training from youth. Educate, elevate.

With true views and correct conceptions of our own interests, all

these remnants of barbarism among the farmers will pass away. They will be like the noisome mist that sometimes hang over a beautiful landscape before sunrise, hiding the beauties of the scene from the view, and filling the air with the seeds of pestilence and death, yet when the sun breaks forth, how quickly they vanish. So let the light of education once shed its full strong beams of enlightenment into the minds of the farmers, and all these mists that have arisen from the marshes of barbarism, and covered many of the beauties of our country and our government from our view, will as quickly disappear.

Shall the future progress of the agriculturists be forward toward the light or are we to sink back into darkness? Brother and Sister farmers will you work in this matter? If so may the Great Master of all the earth, speed the good time when the nation shall indeed be a free people whose foundation and corner stone is laid and built upon the surest of all foundations, that of agriculture.

S. L. BENTLEY.

Hill's Astronomy.

"Simple denial is poor proof."—William Strong.

I think Bro. Strong is not as pleasant towards me in his second article, as he was in the first, and charges me with using the tactics of Robert G. Ingersoll. Bro. Strong and I need not be unfriendly because we differ in sentiment, the best men in the world differ. I shall think none the less of him if he tears my theory into a thousand shreds. But I think we would differ less if he understood my theory better.

I am a Granger, and "have faith in God" to believe that He has sufficient skill and wisdom to build a universe to which no intelligent being can take exception, or, in other words, that the universe is the expression of the perfections of God—therefore, all the heavenly bodies must be inhabited, and universal space replenished with as many globes as it can contain. With this sentiment I can not endorse the theory of Prof. Winchell, nor of Bro. Strong, that the sun is a ball of fire, whose fuel consists of planets, comets, etc., and that it is heated to a greater intensity than can be obtained in a laboratory furnace. This would utterly preclude its being inhabited, and we mortals can see no other use for the sun to serve, in the economy of the universe, than to give light and heat to a few planets and satellites in the solar system.

Undoubtedly there are many people who would desire to refer to articles they have read, but are unable to tell where to look for them. My method of overcoming such difficulties is simple and convenient, and as it may possibly help others out of a trouble, I will give it their benefit.

The plan is, take a common blank book, head pages for as many letters as are in the alphabet, if you wish a page to the letter, or use a page to two letters, or two pages to one letter, to suit the convenience, with, say, "Index to Agriculture," (although it would be better to make divisions of this subject as it is too complicated) then place the letters alphabetically at the pages thus headed. Whenever we find any thing that we wish to save, or refer to we can index it under its proper letter and state just where we can find it.

For instance, I turn to my book headed, "Index to Diseases of Animals," and under B I find "Black Leg in Cattle, Rural New Yorker, June 14, 1884, p. 356." I go to my Rurals, which I always keep on file, and turn to that date and find what is said about the disease. Many of my references are in the Rural New Yorker, and, by the way, no farmer should be without this paper.

If the papers have to be used, and cannot be kept on file, then the pieces may be cut out and put into a box, and when the box is full label it A, and the next one, B etc. I think it a very convenient index, even if the pieces are cut out and pasted into scrap-books.

This little labor, I am sure would save worlds of fretting, and we would not so frequently hear the remark, "I wonder where that piece is, I saw in the paper the other day." Neither would we have the same questions asked through the same paper of no more than four weeks difference in dates.

RAY SESSIONS.

No man expects to get the services of railroads for nothing, and there will be always some drain from the country on that account. But it is the unjust and unreasonable gains of wealth to which we object. Vanderbilt has discovered that he has proved any thing; he only repeats what others have said. I can prove to the satisfaction of any unbiased mind all the statements I have made, but this sheet is too small for lengthy arguments. Encke's comet has been referred to by Bro. Strong and Prof. Winchell to show that space is pervaded with a resisting medium which retards all moving bodies, and will eventually prove the end of all things. They both in part tell the truth, but leave the

main part untold, in such a way as to partly deceive the reader. They show that this comet at each revolution shortens its period about 2 1/2 hours, and that in time, it must reach the sun and be lost forever, and on this flimsy foundation they base the destruction of the solar system and of the universe.

It being a wee bit of a thing, and located in the midst of the planets, with the sun for its perihelion, and sometimes Jupiter for its aphelion point it is liable to varied perturbations. Prof. Encke and others computed the elements of its orbit, and found that it was slowly but surely approaching the sun, that its periodic time was shortened 2 1/2 hours for each of ten consecutive revolutions, or about one day in thirty years. But where it made its eleventh revolution, it turned its aphelion point near the planet, Jupiter and that planet held the comet back nine days, so it lost in one revolution nine times as much as it had gained in ten revolutions. Here is where the great law of compensation comes in, which the Great Ruler has provided for the balancing of the planets and the endless perpetuity of the system. But this fact Bro. Strong and his educated colleague, can not see, for want of sufficient faith in Him, whose works so gloriously reveal his wisdom.

Congress and the Railroads.

Congress is beginning to discover how the question of regulating the railroad system by some kind of legislative prescription, not yet definitely defined, is a much more serious undertaking than the average statesman at first supposed. It has intricate and difficulties of detail harder to deal with than the slavery issue, pension bill, river and harbor improvements, or any of the knotty financial problems that have come up for solution since the war. It requires a more comprehensive and analytical order of mind than has been requisite perhaps for any or all of these; but whether the requirement can be fully responded to, it is too early as yet to pronounce with confidence. Meanwhile, there are almost as many devices for meeting the case in the senate and house as there are doctors and lawyers in those bodies. The question admits of the proverbial multiplicity of counselors, but we have yet to witness the proverbial wisdom. Thus, the House Interstate Commerce Committee proposes a federal commission, but without any power to enforce its suggestions or recommendations; its model in this respect evidently being the New York State commission—a body which performs the function of a mere adviser, and which the railroad corporations, hence, thus far have had very little respect for. On the other hand, we have the long pending and much discussed Reagan bill, which may be said to bristle not only with specific rules and regulations, but with not less specific pains and penalties. If the objection to the former is that it leaves the proposed commission without any power, the objection to the latter, is that it confers upon it an excess of power. Under these circumstances, it may be assumed that if there is to be an intelligent or desirable legislation upon the subject at all, the basis for this must be somewhere between those extremes. It would be unfortunate if the question were to become in any way identified with partisan politics, or made an issue on behalf of particular interests. There was some disposition to turn it in that direction in the earlier stages of the agitation, when the Granger fever ran high, but, happily, that has apparently been superseded now with the conviction that, as it is an economic question in which the whole country has a direct interest, it must be dealt with, if dealt with at all, with the utmost discretion, and on high national grounds.—Commercial Bulletin.

The nominating convention which fails to put a solid anti-monopoly plank in its platform, will find they have lost an opportunity to gain the confidence of the intelligent voters of the country. Neither party can afford to omit such a plank, but should one of the dominant parties fail to insert a strong anti-monopoly plank and the other does so, then the defeat of the monopoly party, for by that name it will be known, will be a foregone conclusion. Let both parties come out plainly, advocating anti-monopoly principles, and the greatest endeavor of "the greatest monopoly of the age" to secure the nomination of Henry B. Payne will be defeated.—Independent Record.

Millions of money have floated to our shores only to reach and fill the coffers of the Standard Oil Company, and then to be used in purchasing increased means of laying competition low. Enterprise after enterprise has been overtaken, dismantled and left to perish. The cries and curses of wrecked men have gone down in the sea of successive failures.—San Francisco Chronicle.

Bro. Easton Rises to Explain.

BRANCH CO., MICH.

Mr. Editor:—We have used the Patrons' Ingersoll Liquid Rubber Paint, and can say that it makes a smooth, elegant finish, and all who use it will be more than satisfied. The paint was delivered to us ready to use, in nice pails, freight prepaid. The Patrons' Paint Works are managed by honorable Patrons. Fraternally, A. W. EASTON, Purchasing Agent. [See advertisement.—EDITOR.]

MICHIGAN CENTRAL RAILROAD.

DEPARTURE OF TRAINS FROM KALAMAZOO.

TIME-TABLE—MAY 15, 1884. Standard time—6th meridian.

Table with columns for WESTWARD, EASTWARD, and train types (Night Express, Accommodation, etc.) with times and prices.

Table with columns for WESTWARD, EASTWARD, and train types (Night Express, Accommodation, etc.) with times and prices.

New York, Atlantic and Pacific Express daily. Evening Express west and Night Express east daily except Saturdays. All other trains daily except Sundays.

H. E. LEVYARD, Gen. Manager, Detroit. J. A. GREEN, General Freight Agent, Chicago. G. W. BOGGS, G. P. & T. A., Chicago.

L. S. & M. S. R. R.

KALAMAZOO DIVISION TIME TABLE.

Standard time—6th meridian. GOING SOUTH.

Table with columns for train types (Le. Grand Rapids, Ar. Allegan, etc.) and times.

GOING NORTH.

Table with columns for train types (Le. Buffalo, Ar. Cleveland, etc.) and times.

All trains connect at White Pigeon with trunks on main line. M. E. WATKINS, Supt. Kalamazoo Division, Kalamazoo.

Ladies Department.

AT LAST.

BY JOHN GREENLEAF WHITTIER.

When on my day of life the night is falling,
And in the winds from unsummed spaces blow,
I hear far voices out of darkness calling
My feet to paths unknown.

MY SUNBEAM.

There are two sunbeams on the floor,
Two sunbeams fair to see;
And one belonged to skies above,
And one belonged to me.

Wine is a Mocker.

This subject, although old, is always a live one, and the oft repeated story is worthy of repetition at all times, and on all occasions, as long as there is a drunkard in the land to be reformed, a father's sorrow to be obliterated, a mother's heart to be healed, a wife's tears to be dried, a helpless child to be cared for, or as long as there is a man in the land who is engaged in a traffic tolerated, though not made respectable by the laws of our State, wherein he is permitted as often as an opportunity is afforded to deal out to his fellow man a deadly poison, hurrying him on the broad road to death and destruction, and robbing his wife and his children of that care and sustenance, which nature, and nature's God have so bountifully intended for all their children.

abundance was drawn indirectly from the poor victims of inebriety, many of whom are filling drunkards graves, and whose families are stared squarely in the face by the emaciated and sickly countenance of nakedness and starvation.
All the luxuries, the pomp, the glitter, fashion and renown of his splendid establishment, was reared upon the downfall of human beings, and at the expense of immortal souls.

moral nature as will enable them to respect themselves, their families, their guardian angels, and their God.
Slavery once existed in this beautiful land. It was a great crime, but it had its advocates who were superior in numbers and power. A small band of honest men commenced a determined opposition, and none could divine the outcome.

ly when asked by a bright, sparkling pretty girl, when if an elderly person would ask the same questions, he would answer in monosyllables and indifference, or with an air—"I should think a person of your age would know when, where, and how, you ought to go," so I turned the questions over to my lively friend.

two ladies did not have any manuscript with them. Two ladies used them partially. To me it seems appropriate for a lady to hold her manuscript even if she does not need to use it. But perhaps that is because I have been accustomed to seeing it.

trouble it takes to prepare meals in a broiling kitchen on a 90-degree day. I think Rev. Antoinette Brown Blackwell is not far wrong when she styles the cooking stove and sewing machine "the two Molochs on which many of our American women are sacrificed."

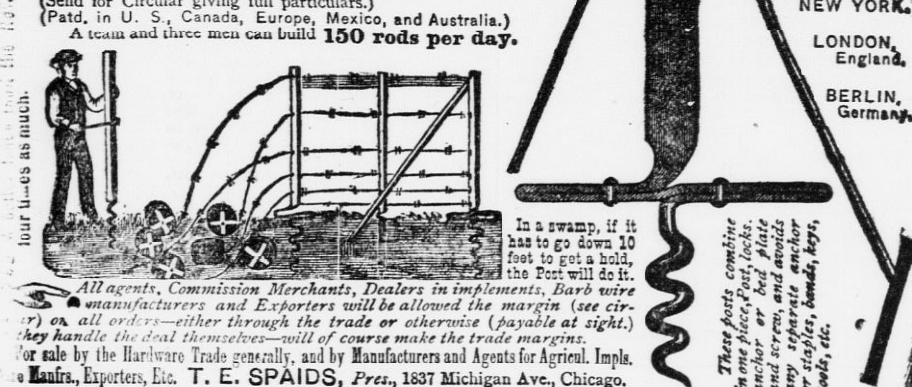
THE AMERICAN CORKSCREW POST!

Strong and Indestructible Fence at Less Cost than with Cedar Posts. The Eureka and Eclipse—American Corkscrew Fence...

A Stronger and Better Fence than England and Germany Produce, AND AT ABOUT HALF THE COST. THE ONLY PRACTICAL METAL POST EVER OFFERED.

THE AMERICAN CORKSCREW POST.

Anchor posts 100 feet apart, with three or four intermediate posts between. All the posts are covered with an indestructible covering...



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PATENTS.

LUCIUS C. WEST, Solicitor of American and Foreign Patents, and Counsellor in Patent Causes.

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A CHOICE LOT OF PURE BRED POLAND CHINA SWINE For Sale at Reasonable Rates.

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Registered JERSEY BULL CALF. Perfect in Color. Age one year. Price reasonable.

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Fall term opens Sept. 1. Send for Journal.

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ALL ORDERS RECEIVE PROPER ATTENTION.

THE NIAGARA FALLS AIR LINE



CHICAGO & GRAND TRUNK RAILWAY TIME TABLE.

Table with columns for Stations, No. 2, No. 4, No. 6, No. 8, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20, No. 21, No. 22, No. 23, No. 24, No. 25, No. 26, No. 27, No. 28, No. 29, No. 30.

Way Freight and Schooler, Eastward 5:35 P. M.; Westward, 10:15 A. M., except Sunday.

No. 1 will stop at Valparaiso 20 minutes for meals. No. 3 and 6 have a Dining Car attached between Chicago and Battle Creek.

All Chicago & Grand Trunk trains are run by Central Standard Time, which is one hour slower than Eastern Standard Time.

M. B. CHURCH "BEDETTE" CO., GRAND RAPIDS, MICH.

THE "BEDETTE."



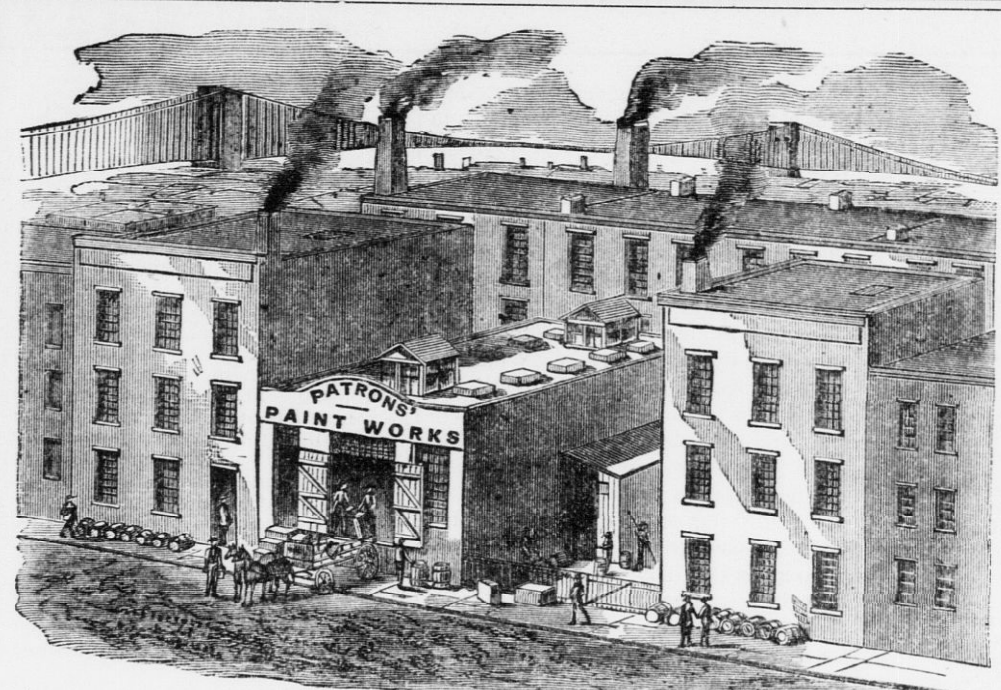
Patented June 13, 1882.

This invention supplies a long-felt want for a cheap portable bed, that can be put away in a small space when not in use, and yet make a roomy, comfortable bed when wanted.

The "BEDETTE" is a Household Necessity, And no family, after once using, would be without it.

PRICE: 36 inches wide by 6 1/2 feet long, \$3.50. 30 inches wide by 6 1/2 feet long, \$3.00. 27 inches wide by 4 1/2 feet long (cover not adjustable) \$2.50.

For Sale by Furniture Dealers Everywhere.



MANUFACTURER OF INGERSOLL'S Liquid Rubber Paint, The ONLY PAINT KNOWN TO SCIENCE that will successfully resist the action of MOISTURE, SUN, SALT AIR & WATER, FUMES FROM COAL GAS, &c., and therefore the CHEAPEST PAINT for HOUSE, SHIP, CAR, TELEGRAPH, OR STEAMBOAT PAINTING. FINE BRUSHES.

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We pay the freight and sell you at the lowest wholesale factory prices, the same as if you came to the factory. We were the first concern that sold to Patrons, and we don't want store keeper's trade now.

Brother R. H. Thomas, Secretary Pennsylvania State Grange says: "Many of our members have more than saved their Grange expenses for a lifetime by purchasing your paint."

Brother Thomas was formerly a painter. Brothers J. T. Cobb, Secretary, and C. L. Whitney, formerly Lecturer of Michigan State Grange, have used and approved this paint, and 206 Subordinate Granges use no other paint.

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\$2.50 GOLD PIECE GIVEN AWAY.

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We will give to everyone buying MEN'S OR BOYS' SUITS

FROM \$12.00! \$12.00! \$12.00!

And Upwards,

A \$2.50 Gold Piece!

A \$2.50 Gold Piece!

Our \$12 Suits are selling everywhere for \$15

" \$15 " " " elsewhere for \$18

" \$20 " " " " " " \$25

Besides the above prices, we give a \$2.50 Gold Piece with a \$12.00 Suit!

\$2.50 Gold Piece with a \$12.00 Suit!

We also cut them over to fit you.

All Suits below \$12.00 we have reduced from \$2.50 to \$4.00 per suit.

A Lot of IMPORTED JERSEY SUITS for Boys, Reduced to \$1.95.

SAILOR SUITS, \$1.65.

ALL WOOL SUITS, \$3.50, 3.65 to 7.95.

MANILLA HATS, \$1.38; worth \$2.00.

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