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The Wisconsin horticulturist: issued monthly, under the management of the Wisconsin State Horticultural Society for the purpose of disseminating the horticultural information collected through the age...

Wisconsin State Horticultural Society

Madison, Wisconsin: Democrat Printing Company, April 1896

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THE WISCONSIN



HORTICULTURIST

ISSUED MONTHLY,
UNDER THE MANAGEMENT OF THE

WISCONSIN STATE HORTICULTURAL SOCIETY

For the purpose of Disseminating the Horticultural Information
Collected through the Agency of the Society.



EDITORS:

A. J. PHILIPS, Manager,
West Salem.

MRS. VIE H. CAMPBELL,
Evansville.

DEMOCRAT PRINTING COMPANY,
MADISON, WIS.

BUYING TREES.

Eds. Wis. Horticulturist:—Many are at a loss to know where to buy their trees; alas, almost everybody gets roped in by the irresponsible tree peddler. Trees grown in our own state are much better than trees grown south or east—the nearer home you can get your trees and plants the better, providing they are well grown. They will be better acclimated and of the varieties that will succeed better in our own state.

Every nurseryman who keeps up with the times can advise you what to plant on your own soil, and whether certain new kinds are worthy of trial; it may be he also knows whether you want them for the cattle or for fruit.

GEO. J. KELLOGG.

Janesville, Wis.



WISCONSIN'S RESOURCES are attracting general attention, and its railroads furnish the means to develop them. The limitless iron ore deposits of the Penokee and Gogebic Iron Ranges provide abundant opportunity for the establishment of Iron Furnaces and general iron working industries. Hardwood timber in great quantities attracts manufacturers of all wood articles, including Furniture, Woodenware, Staves, Headings, Hoops and Veneering; the Granite and Lime Stone quarries are attracting attention, as their quality is unsurpassed for fine building work and strong lime. Numerous Clay, Kaolin and Marl beds furnish the best material for Tile, Brick and Pottery.

All of these materials are located along the line of the **Wisconsin Central**, and any one who desires to locate a manufactory is requested to write us, as we desire to confer with everyone who wants a good location with facilities for reaching markets everywhere.

W. H. KILLEN,

Industrial Commis'r.

C. L. WELLINGTON,

Traffic Manager.

H. F. WHITCOMB,

General Manager.

MILWAUKEE, WISCONSIN.

A GREAT RAILWAY.

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GEO. H. HEAFFORD,

Gen. Pass. and Ticket Agent.

The Wisconsin Horticulturist.

VOL. 1.

APRIL, 1896.

NO. 2.

As we did not obtain the plate in time for our first issue, we herewith present the picture of our time-honored president, J. M. Smith, late of Green Bay, Wis. His widow, for whom all horticulturists who know her have the greatest respect for her good deeds and kind words, informed the writer that she now has thirty-two grandchildren, and it will be strange if the horticultural mantle once worn by him that has gone does not fall on some of his descendants as workers in our state society.

As it is timely and full of good points for the beginner we will give first the excellent paper by G. A. Freeman, of Sparta, a young man who is practicing what he preaches in small fruit culture; to be followed by a paper by the veteran member, J. C. Plumb, on the care and preservation of our beautiful evergreens. This to be followed by a paper on the future of our state society by Mr. Toole, the pansy specialist of Baraboo; to be followed by reports of delegates to the societies of sister states; to be followed by reports of local societies and perhaps reports of committees on observation. The May number will contain besides other reports that of the president, secretary and treasurer, as they will be acted on at the June meeting.

A. J. PHILIPS,
Secretary.

SMALL FRUIT GROWING FOR A YOUNG MAN WITH SMALL CAPITAL.

By G. A. Freeman, Sparta.

Mr. President, Ladies and Gentlemen:—

I do not know why it is that my name should have been placed upon the program for a paper on "Small Fruit Growing for a Young Man With Small Capital," unless it is for the simple reason that I realize and appreciate the meaning of the

expression more fully than any one else of same experience as myself, upon whom the task might devolve.

I am a firm believer in the doctrine that in order to make a success in life, one must be more or less self-reliant; if we depend too much upon our neighbor's management, as a model after which to manage our affairs, we are quite apt to be defeated in the end. Again, if we would be successful in any undertaking, we must be thoughtful students in the line of work which we have selected. One farmer may be successful in stock raising, while another chooses instead to raise grass seeds, hay and corn for the market; but either may be successful if he be thoughtful and prudent in his management. So I believe there may be different means of successfully accomplishing the same ends. I know of no occupation more suitable for a young man with small capital than that of small fruit growing.

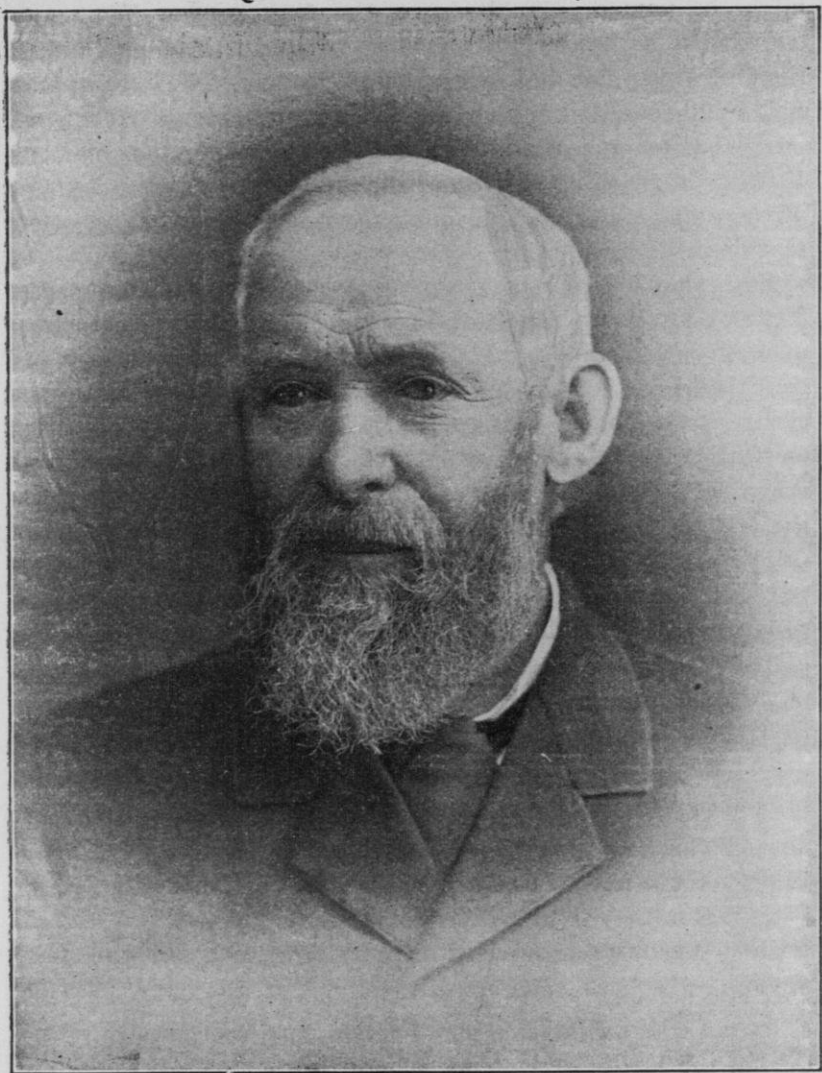
Why? I believe it is the duty of every man, while yet in the morning of life, to prepare for a cloudy future, for we know not when the rain will come,

"For into each life some rain must fall,
Some days must be dark and dreary."

Small fruit growing necessarily implies an investment in real estate, which is better than a savings bank account.

Right here let me say to the young man, do not be led to believe that an eighty acres of sand at one hundred and fifty dollars would be a better investment than good land at fifty or one hundred dollars an acre. It is not so. I will sell more dollars' worth of small fruit annually from one acre of my land than many a so-called sand farmer has realized from his quarter section. The young man who invests in real estate is quite likely to add to it by way of improvement, and thus save the small earnings, and by so doing he will erect a monument to his credit, and a sure defense in time of physical disability.

As a matter of income, judging from the experience of those with whom I have been associated, as well as my own experience as a small fruit grower, I think that small fruit growing as an occupation will compare very favorably with that of the farmer, mechanic, merchant, or perhaps a score of others which



Yours truly J. M. Smith.

might be named. To be sure, the fruit grower has many drawbacks as well as his farmer friend; frosts may injure his crop this year, and a protracted drought reduce it to one-half next year, but let us not be discouraged by trifles, but renew our faith, zeal and courage, and remember that our destiny lies in reaching the top of the ladder step by step instead of by a single bound, and suddenly acquired wealth is often transient.

Methinks I hear some one interrogate after this wise: Young man, if the conditions are the same, and fruit growers meet with the same disadvantages during the next three years that they have for three years past, where will you be, financially, at the end of that period? To such a one I would say emphatically: Making a good living and accumulating property. The same unseen hand that causes the frost to fall upon the strawberry blossoms, will also point out to the thoughtful, painstaking horticulturist the way to meet and overcome adverse circumstances, so that he may come out more than conqueror in the end. But I am fully convinced that the time has already come when the brain as well as the muscle must play an active part in order to insure success in any occupation; and in every case let us try and content ourselves, if need be, with little beginnings, bearing in mind the words of the poet:

"The heights by great men gained and kept,
Were not attained by sudden flight;
But they, while their companions slept,
Were toiling upward in the night."

It is a solemn fact that there are many young men in our cities, as well as those whom I might mention as dear to me during the latter part of my school life, who were not satisfied with small beginnings, but feeling capable of filling almost any position within reach of the ordinary intellect, have waited for a so-called "snap" at forty, sixty or one hundred dollars.

Perhaps one in a thousand found the "snap" and the rest are waiting yet, and they have waited so long that it has become their business and no one cares to speculate in the matter of their conversion to habits of usefulness.

I will not attempt to discuss this subject at length from a

business standpoint, but it is evident that the fruit grower becomes a part of the business world, and although in many instances he finds himself in the midst of a multitude of problems, perhaps minute in detail, but in the solution of which may be found just the very experience that he may need in time to come in solving other and greater problems. Strict business principles tend to mental improvement as well as moral uplift.

How many men there are today, who, if they could turn the pages of a daybook or ledger and see where perhaps hundreds or even thousands of dollars have been worse than squandered by their individual foolishness, would blush with shame, whereas if they had started out on strictly business-like principles and formed the habit of registering systematically all receipts and expenditures, they might have been justly proud to place before the world's gaze the figures that speak aloud of a life of economy and usefulness.

The occupation in question affords abundant source for such habits; in fact, they are almost compulsory—as indispensable in the case of the small fruit grower as with the grocer or the druggist. When once the habit is formed, if properly nourished, it soon becomes second nature.

We love our upright, energetic business men, but for these the world would soon degenerate. Who but they start any noble project? They build our cities and rear our manufactories; they till the soil; they grow small fruit; they draw treasures from the mines. Blessings on them! There is in the character of nearly every young person, except perhaps the experienced school teacher, the lack of a self-discipline so necessary in order to properly fit him for association with the great variety of natural dispositions, which he will certainly come in contact with in his every day life, and I find in the occupation of which I speak, an opportunity to acquire to some extent this much needed experience. While we are all ambitious of our personal interests, I doubt if there is a young man present who cares to live entirely to himself; but all wish the world to be better for our having lived in it, and here lies the golden opportunity for us to exert a kindly influence on the homes and in the home life of our respective communities;

for we must acknowledge the home as the true foundation of society, and whatever of general refinement we add to our home life, will certainly tend to the uplifting of society and the advancement of our country. It has been well said that if we would be remembered after we are dead, we must write something worth reading or do something worth writing about, and while so many of us lack faith of being able to accomplish the former, our only hope is in the latter.

Last of all, but not by any means least, is the subject of health to be considered. Why is it that now a family of two or three will consume more small fruit annually than would a family of ten or twelve ten years ago? It is because they have learned from actual experiment that health is wealth, and as long as good home grown fruit is within their reach they will not do without it. How often we hear such expressions as these: "Those raspberries seem to be just what my system needs." "Oh! if I could only have all the strawberries I want!" "It seemed as if those strawberries you sent me when I was sick tasted the best of anything that I ever ate." I believe it to be a fact without doubt that the free use of good wholesome fruit has saved, and will save, many dollars' worth of medical advice, and make many a life longer and happier. And while we believe this to be true, we know of no conditions that will be so sure to produce the reality, as for the young man to become a grower of this small fruit.

We also find on the fruit farm a system of manual labor coincident with good bodily exercise and muscular activity. Again we find an abundance of indoor employment during the winter months and bad weather in summer. Taking into consideration the many opportunities offered us, shall not we press forward in the paths of right, encourage those who have started in the good work, and thus do justice to ourselves, and become public benefactors in the communities in which we live?

Secretary—One of the aims of this society has been to interest the young men. Now we have just heard a paper from a young man and I want to hear from Mr. Stickney about the paper.

J. S. Stickney—I want to say that I have not listened to a

paper for a long time that I have been so much interested in as this paper we have just listened to.

Mrs. Treleven—As I was listening to that young man's paper I was reminded of our local societies and I felt that we make a mistake in not making more effort to try to get the young people in.

M. E. Hinkley—We have heard from two young men this afternoon and we do not want to give them too much taffy, but if they are the right kind of young men it will not hurt them. If their practice is as good as their theory they will be heard from in the future.

THE FUTURE OF THE STATE HORTICULTURAL SOCIETY.

Wm. Toole, Baraboo.

These few remarks in regard to the future work of our society are not offered with the expectation of wisely directing its plans, but rather hoping that suggestions may bring out discussions which shall definitely shape its work for a more prosperous and useful future.

You older members, who have in the past, and to the present time, striven together to promote the interests of horticulture in our state, can look with pride over the good which has been accomplished, and from our vista of present knowledge, view hopefully the future, feeling that through wisely directed efforts, our society may do more than ever to help add to the wealth of the people, and also add comfort and beauty to their homes.

While much has been done, and much more will be done, solely for the love of doing good, yet a great deal of service is required which must be paid for. If our secretary is well paid we have a right to ask good service in return, but if our widening sphere of usefulness increases our demands on him, then his remuneration should equal our requirements. So, too, if our society does missionary work by carrying the gospel of horticulture into new fields, or increases its work through trial stations, we have increased expenses to be provided for.

We have but two sources of revenue to depend upon, individual membership fees and appropriations from the legislature. If we are proud of our society, then, to promote its aims and ability for doing good, we should each strive to add to its membership, not only for the dollars brought in, but, still more, for the working strength which an active membership gives. That we are entitled to state aid is fully recognized, but if we ask for any definite sum we must necessarily show good reason why it should be given.

Some of you will remember being called upon last winter to explain to the legislative committee why we needed the sum asked for. As the appropriation was made, we may feel that good reasons were given. It would be well if the aims and plans of this Society were so well defined that active members could, at any time, show good reasons for trying to secure appropriations or memberships.

To make a clear showing of the affairs of the society we should adopt a systematic plan of accounting for expenditure of its funds. We have been favored in the past with the integrity of those who have handled the moneys of the society and we may be equally fortunate in the future, but we should have opportunity at any time to study the items that we may know where to economize when necessary. Thanks to those in our state who have done pioneer horticultural work in experimenting for themselves and others. The knowledge they have given us has been a nucleus which, added to by the many excellent papers on kindred subjects and the discussions of our meetings, has created a fund of horticultural literature, which, preserved by our horticultural reports, is of incalculable value, not only to our own state, but also to a large portion of the United States. Yet much as we value them we have not been fully satisfied with these reports. It has seemed as if the editing had not been well done. Those who have had much to do with printers know that letting to the lowest bidder does not secure good service, and the legislature should grant us relief from being obliged to accept whatever the printers choose to furnish.

Probably the greatest disappointment comes from the reports of discussions, and with all due regard to the necessity

for condensing a mass of records which could not possibly all appear in the printed report, we feel that we, many times, miss the intention of the speakers and that which should have been the best preserved has often been lost.

We believe that a typewritten report, in full, of the discussions should be furnished the secretary and from this he could carefully select what would be most valuable for future reference.

We should not overlook our relations to local horticultural and kindred societies. We would like to know how many horticultural societies have been organized through the help of the state society; how many of these are still in existence; to what extent they have been helpful to the state society, and if in any case we pay the expenses of delegates from societies which do not keep up an active organization.

There is no doubt that sending delegates to and receiving the like from sister state societies has been in the interests of horticultural knowledge, yet we wish to know if such intercourse with all has been equally profitable.

Our relations with the State Agricultural Society of late years has been peaceful and friendly, yet, in our desire to strengthen cordiality between the two societies, we should not forget that the dignity of our Society is equal to theirs.

Our Trial Stations have been continued long enough to furnish data from which to judge if they pay or if any one of them cannot profitably be continued. Should their number be increased or plan of management be changed? Madison being the state capital, as well as more central than any other large city, we may naturally continue to look on it as the home of our society. It seems as if there should be more local interest shown in our work. To bring that about perhaps we need to feel more interest in the horticultural wants of such cities as Madison and Milwaukee. In decorative horticulture we have gone over the ground very broadly, touching lightly. While not desirable to go to extremes in any direction there is much we might profitably learn from the Massachusetts and Pennsylvania Horticultural Societies.

While strengthening home ties we should not forget our abiding place. To have no place in the capitol building would

seem like being robbed of our birthright, yet we must not shut our eyes to the fact that during legislative winters the room we occupy is very much needed for other purposes and it would be well to plan for the use of some hall if necessary. I think I might add another point and that is, do we do all we can, or ought to do, by the way of advertising?

DISCUSSION.

B. S. Hoxie—I think perhaps Mr. Toole does not understand that all the financial expenses are not published because it would take too much valuable space in our reports. The items of expenditure all go before the auditing committee and are acted upon. All of the bills go before that committee. With regard to getting a shorthand reporter and putting the report in typewriting, I found while I was compiling the reports that it took more work to go over the reports and cut out what was unnecessary, and that it would cost more than our society could afford to pay. A shorthand reporter takes down everything that is said and there is a great deal of repetition, which, of course, must be cut out. I do not know how we can prevent mistakes in our printed reports unless the state will give us a sufficient appropriation so we can engage our own printers. I often found that my corrections in the proof were not noticed by the printers.

Wm. Toole—I have had printing done for three years by the Democrat Company and I find trouble in the same way. I very carefully correct and still there are errors when the work comes out. I cannot but feel that in the reporting of the discussions much that is valuable is lost sight of, and, in looking over what I have said and others, it would seem to me much better if we could have a shorthand reporter. I think we should always have an itemized report of expenses.

Secretary—I do not know that it is possible, as Mr. Hoxie says, to get out a report with no mistakes. I know that the Society in Minnesota employs a shorthand reporter and I notice that their volume contains more mistakes than ours. There is occasionally an error that creeps in that we cannot seem to avoid however much we may wish to do so. With regard to itemized accounts, I always send in an itemized bill to Presi-

dent Kellogg to look over. I have always had great confidence in his ability to do those things. This year our reports were so long that we overrun our allowance thirty pages. I try to get out as good a book as I know how. We all make mistakes. With regard to advertising our meetings in the newspapers, I sent the program to thirty-five papers in the state, and it was published in a number of them. This year I sent 200 programs to families in the city of Madison, and I think you will see a larger audience here this year than ever before.

Chas. Hirschinger—You either pitch into the editors or the legislature, and there are some of them in the room tonight. The law is all right, and the printing is let to the lowest bidder. I think our work costs us about fourteen cents. Now if you get the legislature to give you a larger appropriation and you hire your own printer it will cost you about twenty-five cents a copy. If they do not do their work right you must take the books back to them. The Secretary is not obliged to accept them unless they are as they should be. The officers should take more interest in the society. When the matter came up in the legislature I asked for 300 pages and your Secretary said he could get along with what he had, and so they said to me, "You are asking for more pages than your people want." The secretary has overrun thirty pages this year, so you see I am about right after all. I would not have come out publicly on the secretary if he had not hurt my feelings in there.

Secretary—Well, you are about right, and you are almost always right, if no one talks after you. I was asked if I would rather have more pages or more bound volumes, and I said I would rather have more bound volumes. Every one prefers a bound volume to one in paper. It is easy enough to stand here and find fault but when you take all those papers, some of them written finely, it is pretty hard to estimate how many pages you will need; it's not easy to plan them and not overrun the number of pages. I would rather have 5,000 bound in cloth than to have 7,000 bound in paper. The Secretary of State has been liberal with us and has given us a few more pages.

Chas. Hirschinger—I did not expect there would be any feeling on this subject. No one has any chance unless he talks after Mr. Philips.

B. S. Hoxie—I did not wish to find any fault with the law. I think it is all right. I have heard so much said about mistakes here. I know it is almost impossible to prevent them. I have ceased looking to find perfect things, but I wish to state that it is not always the fault of the reporter or of the secretary who edits the volume. If the time ever comes when we can get an appropriation and hire our printing done we may, perhaps, be able to get it done as we want it. Mr. McKerrow who has some 40,000 Institute Bulletins printed has some chance to dictate to the printers.

Mr. Marslem—If you want to make these meetings a success you must advertise them. We do not want Wisconsin to get in the rear. I came into the country fifty years ago and I do not expect to stay in it for the next fifty. We must look to the young people to take our places, and so we must get them interested.

REPORT OF E. J. SCOFIELD, HANOVER,

Delegate to Northern Illinois Horticultural Society.

Through the courtesy of this Society it was my pleasure to represent you at the meeting of the Northern Illinois society, which convened December 3d and 4th, at Sterling, Ill. Meeting was held in the City Hall, in the room of the Illinois Firemen's Association. Your delegate was cordially received and royally treated, which seems to be a trait of the fraternity, and our northern Illinois brethren seem to have inherited an extra portion.

I will now endeavor to give you an outline of the proceedings of this meeting, opening with prayer and followed by president's address, which was very short, humorous and to the point.

First subject taken up was "Raspberries and Blackberries," and was ably handled by H. R. Cotta, Freeport. Mr. Cotta believes in constant, thorough cultivation, but not deep (and in this I think all successful small fruit growers will agree lies the key note of success). He is very highly pleased with the Z. Breed weeder, as the main implement. Although he is a friend to the Planet Jr, with its attachments, his methods

of handling both raspberries and blackberries are similar to those practiced with our successful growers. Blackberries are given winter protection in same manner as practiced by our extensive growers at Sparta, Ripon and Baraboo.

At the close of this paper there was quite a lively discussion followed, question being asked as to which one variety of black cap was best for home and family use. C. R. Powell answered, "Ohio." Several others seemed to be of the same opinion. Question being asked H. R. Cotta as to best market varieties. He named Palmer, Older and Kansas for black; Turner and Cuthbert for reds, but thinks "Columbian and Loudon" are the coming reds, from what he knows of them so far.

Balance of forenoon was spent in discussion and report of treasurer.

Afternoon Session.

First in order was secretary's report, which was like the president's, brief and business. This was followed by appointment of committees, when the subject of "The Home Flower Garden" was called for. This had been assigned to C. R. Powell, of Sterling, who being absent in another state at the time notice was sent him, did not receive it in time to prepare an article for the occasion. Nevertheless, he being present got out of the scrape in the same way as "Adam in the garden of Eden," he turned the subject over to his wife, who gave a very good list of annuals, bulbs, and tubers. Several other members present mentioned fine varieties, while President Miller, who I judge is a great lover of the rose, gave a very interesting talk on this flower as to varieties, mode of treatment, etc., one of which was to induce the family of June roses to bloom in September, by not allowing them to bloom in June, by simply removing the flower buds.

Next in order was Potato Culture, by A. J. Sweezy, of Rockford. He prefers a clover sod, uses stable manure two years old, cold cellar for seed, makes the soil very mellow and fine before planting, and keeps it so by thorough culture, seed not cut, no matter how large, but prefers medium sized seed; rows

one way, plants 4 inches deep, harrows them until 6 inches high; implements mostly used in culture, Z. Breed Weeder, Planet Jr. Cultivator, and Aspinwall Planter. To destroy beetles, uses paris green dissolved in water, and applied with barrel cart. Potatoes when dug are picked into boxes holding one and one-fifth bushels, loaded on planks, to be taken from field, stored in dark, cool cellar. Two important points: Get after the beetles in season, and be careful in handling the potatoes not to bruise them.

One of the humorous features of this session was a German dialect reading by President Miller, telling of Kathrina and the bees. It was greatly relished by the audience, for Mr. Miller is an excellent reader and the piece was laughable.

Evening Session.

Obituary of S. G. Minkler, of Specie Grove, Kendall Co., written by Edward Seely, of Yorkville. That gentleman not being present it was read by Arthur Bryant, of Princeton. Mr. Minkler was an old and valued member, an authority on orchard culture in northern Illinois, and his memory will be long perpetuated in the Minkler apple, which he first produced.

Next came the address of welcome, delivered by Judge H. C. Ward. In a jovial manner the judge explained that the welcome had been withheld until the middle of the convention in order to give the city a chance to see what kind of fellows these horticulturists were anyway, and as they were found to be pretty decent kind of people he took great pleasure in behalf of the mayor and city in extending to them a cordial greeting, and closed with an invitation for them to come again.

Roots, by J. V. Cotta, of Nursery, was next taken up. His paper was valuable in information on the subject of underground vegetable life. He gave the various dictionary definitions of the word root as distinguished from the tuber, bulb, etc. The principal part of his paper treated on piece root or whole root grafting, in which he claims one no better than the other, but the coming tree must be top worked, or better still, double top worked.

A paper on Subsoiling, How Done, Its Benefits, etc., written by the managing editor of the "Orange Judd Farmer," and read by Secretary Hartwell, in which the writer gave his views on the subject, thinks it of great value as the upper layer of soil is broken up and placed in a condition to hold a maximum amount of water, this moisture is held there for use in a dry season, heat and air are allowed to penetrate the soil, better plant roots are given a better opportunity for development, and many roots develop more completely, thereby resulting in a higher grade vegetable.

Plumbs and Cherries. This paper was prepared by C. W. Prescott, of Marengo, who, it is claimed, owns one of the finest cherry orchards in the state. This paper was read by President Miller. The writer claims to be successful. Care should be taken as to selection of varieties, and preparation of the soil. The ground to be prepared the year before, keep it well pulverized and level, well drained, dirt ridge, because cherry and plum trees need all surface moisture that would naturally come to them. Plant trees 16 feet apart, use mulch if required to enrich, keep orchard cultivated, and stir up mulch. Select trees one year old, with Mahalab roots (for Marengo locality). This paper brought out an animated discussion of the relative values of the Mahalab and Mazzard roots. The majority testified to the merits of the Early Richmond on Mahalab roots. In some localities the Mazzard was claimed to be doing well. Secretary Hartwell said cherries planted in his grassy lawn had soon died, while those planted in a properly cultivated cherry orchard were flourishing. One or two satisfactory reports of Morello, but not generally well regarded.

"Effects of Horticulture on Character" was the next topic by Dwight Herrick, of Rochelle. It is well known, he said, to those who have come in contact with horticulturists, that their calling exerts a wonderful influence in the growth and development of "character." There is something about it that awakens man to the great possibilities of life, that leads him on to a broader plane of living, its effects being noticeable in the young, every child having an appetite for fruit and a natural love for flowers. Once the child becomes deeply in-

terested, there is no danger of his becoming a drunkard or a lazy vagabond. He mentioned the deplorable condition of a northern Illinois town of 2,000 population with eight saloons and no fruit grown. He considers the chances ten to one in favor of the boy among his strawberries than the boy with his pockets full of marbles.

The next essay was by Mrs. Emma Groh, of Franklin Grove, "Horticulture from a Woman's Standpoint." This was a most excellent paper. She treated of the beauties and ennobling influence of horticulture as an occupation, how well it was adapted for women, of the general good health of those who are engaged in it, of its aid to women in her chief occupation, that of home making. She believes health is not gotten from a pork barrel, that people are more irritable and quarrelsome on a diet of meat than on fruits and vegetables.

Second Day—Morning Session.

First topic taken up, What to Do with an Old Orchard, by Geo. Deland, of Dixon, and read by the secretary. He said the thing to do with an old orchard was to clean out the dead trees and prune the living ones when in bloom. Prepare the ground for potatoes or corn. Draw from the compost heap liberally, spread under each tree remaining, apply wood or hard coal ashes about the trunks of the trees, scrape them, wash them with lye, and kill the lice and other vermin. He gave some very good advice on the care of young orchards. Discussion followed in which many persons gave their experience.

Next subject was Strawberries, which was read by your delegate, and brought out quite a discussion as to modes of culture, etc., and occupied most of the balance of this session.

Afternoon Session.

First on the docket was the election of officers, which resulted as follows: President, Arthur Bryant, Princeton; secretary, Justin L. Hartwell, Dixon; re-elected Treasurer L.

Woodward, Marengo. Polo was selected as the next place of meeting.

Next came the reading by the secretary of a paper on Varieties, from the Scientist's Standpoint, by Prof. G. W. McClure, of Champaign.

"Varieties, from the Grower's Standpoint," was the subject of a paper read by Arthur Bryant, of Princeton. The balance of this session was spent in discussing these papers and asking questions.

On the question being asked, "Are there any apples grown in northern Illinois this year?" Arthur Bryant reported 100 barrels of Willow Twig grown by his brother. On making inquiry among the members present, J. L. Hartwell tells me he had 25 barrels from 25 trees. His trees are young. A. F. Moore, of Polo, tells me he had 2,000 bushels this year, 1,000 bushels of them Duchess. Said he had apples every year, does not profess to be a horticulturist. As his chief occupation is breeding "Morgan" horses, he is president of the Illinois Morgan Horse Breeders' Association. Has 100 head on hand, but anticipates putting out 100 acres of apples on his 600 acre farm.

On the question being asked as to what varieties of fruit to plant in northern Illinois, the replies were as follows: Summer apples, Yellow Transparent, Duchess, Benonia; fall apples, Wealthy, Snow; for winter, Ben Davis, Salome, Willow Twig, N. W. Greening; cherries, Early Richmond, Mt. Morency; plums, De Soto, Lombard; pears, Flemish Beauty, Keiffer; gooseberries, Downing, Houghton; currants, Red Duch, Victoria, and for white, White Duch; grapes, Moore's Early, Worden, Concord, Brighton, Niagara; strawberries, Warfield, Haverland, Crescent, Capt. Jack, Bisel, and Splendid, well spoken of.

Evening Session.

First paper read was by A. J. Sweezy, of Rockford, "Plant Life and Its Uses," which was very interesting and instructive. Next in order came, What the Amateur Wants to Know

About Horticulture, by Allen Joiner, of Polo. The writer thinks there should be some occupation for retired men of all occupations, something to keep them employed and out of mischief, where their minds and hands are both employed so they will not be peevish, fretful, finding fault with everything and everybody around them. He suggests amateur horticulture as the remedy. In this I think many of us will agree with him.

"Prize Essay" was the last topic of the meeting. There was a prize of \$5.00, offered by Mr. Dwight Herrick, of Rochelle, for the best essay, "Horticulture on the Farm," and was awarded to C. R. Powell, of Sterling. His essay was a good one.

One thing in particular surprised me, there was no fruit of any kind on exhibition from Illinois. Nineteen varieties of potatoes were shown by Powell & Hartman, of Sterling. These were fair specimens, but no comparison to what is generally shown on our tables.

There were no premiums offered by the society on fruits or vegetables, which probably was the chief reason of no display, but I must mention the exhibit of Oregon fruit, by the Eastern Oregon Colonizing & Fruit Land Co., of Union, Union Co., Oregon. The exhibit consisted of 25 plates of apples, of as many varieties, all very large, high colored, and the most perfect specimens I ever saw, not a blemish on one of them. In addition to these there were about 60 glass jars and cylinders filled with all kinds of fruit grown in that county. The collection contained all fruits that can be grown in California, except oranges and lemons. Fruit was preserved in salt brine, and the whole exhibit was magnificent, and shows what eastern Oregon can do for horticulture.

H. R. Cotta, of Freeport, had on exhibition a one-year-old Downing gooseberry plant, grown this season from a cutting; entire length of plant and roots, 49 inches; spread of top, 25 inches, with 70 branches from one to sixteen inches in length. The plant had 116 roots, over 12 inches in length, the longest root being 32 inches. He also exhibited a Warfield strawberry plant grown in hill, with roots in proportion to the gooseberry. He showed these as an object lesson to

prove what can be done in a dry season by preparing the soil 10 inches deep, and keeping up constant shallow cultivation.

Take it upon the whole, there was much interest manifested all through the meeting. Large attendance at every session.

Paid up membership of 53. In regard to varieties and methods, I think perhaps we are a little in advance, especially in small fruits. But they are wide awake and on the alert, and we must keep stirring to keep in the lead. I like the manner of conducting their meetings. Plenty of time is given for discussion, which I think is of the utmost value. Also the question box is a very valuable adjunct to any horticultural meeting. In addition to the regular business, the evening sessions were enlivened by recitations, vocal and instrumental music, Sterling furnishing the talent Tuesday evening, and Rock Falls Wednesday evening.

REPORT OF C. E. TOBEY,

Delegate from Wis. State Hort. Society to Ill. State Hort. Society, at Kankakee, Dec. 10th, 11th and 12th, 1895.

The 40th annual meeting of the Illinois State Horticultural Society was held in G. A. R. Hall, at Kankakee, December 10th, 11th and 12th, 1895, and was very well attended during each session.

The papers presented were carefully prepared, and discussion was free and interesting. Officers and members were very cordial and did their best to make it pleasant for the visiting delegates from Missouri, Michigan and Wisconsin.

The program included "Care and Cultivation of Apple Orchards," by Chas. G. Winn; "Noxious Weeds," by L. R. Bryant; "Distribution of Plants," by Prof. Burrill, of University of Illinois; "Ornamental Trees," by Jabez Webster; "Small Fruits," by H. L. Doan; "Home Made Fertilizers and Green Manuring," by Prof. Eugene Davenport, Professor of Agriculture, University of Illinois; "Thorough and Clean Cultivation," by G. W. McCluer; "The Marketing of Orchard Fruits," by President R. Morrill, of Michigan State Horticultural Society; "Supplemental Irrigation of Illinois Eastern Insane Asylum,"

by Dr. Clark Gapen, the superintendent; "Grapes, Varieties and Cultivation," by Wm. Gould; "Late Spring Frosts and How to Protect from Them," by H. M. Dunlap.

I did not find the interest I expected to find in the small fruit discussions, although the acreage of them in Illinois is immense. Varieties are about the same as we advise in Wisconsin, especially the varieties advised for northern Illinois, but those grown in southern part are so different as to be hardly recognized by name by our average Wisconsin grower.

I listened with pleasure to the discussion on apples—the talks on spraying—and got in a word on friend Philips' tree protector.

We were invited and accepted the invitation of Dr. Gapen, superintendent of the Illinois Insane Asylum at Kankakee, to spend a few hours in buildings and on the grounds of the asylum, and were shown over the 90 acres that were irrigated the past season. Vegetables were grown to a large extent and furnished to the 2,000 patients and 500 employes.

Water is furnished for the irrigation by the pumping works of the institution and from the Kankakee river, which also furnishes water necessary for the hospital and watering of almost 200 acres of lawn.

REPORT OF L. G. KELLOGG,

Delegate to Annual Meeting of Iowa State Horticultural Society.

The annual meeting of the Iowa State Horticultural Society convened December 10th, 1895, at the state capitol in the city of Des Moines. As a delegate from our Society I did not arrive until 11 o'clock of the first forenoon and at once proceeded to the state capitol.

The first thing that particularly attracted my attention upon entering the state house was a magnificent display of apples coming from nearly all sections of the state, especially the central and southern counties, the northern counties having a light crop on account of late spring frosts. You can only anticipate the magnitude of this grand exhibit of apples by a

brief description of the space they occupied. There were 16 tables 4x12 feet, arranged in a circular form in the rotunda of the capitol, and all the available space on these tables occupied by about 2,000 plates of the choicest apples Iowa produced in 1895.

It would be useless to even attempt a brief description of the different county exhibits and the varieties comprising these exhibits as the varieties grown in Iowa are somewhat different from those in Wisconsin. Among the exhibits we noticed several plates of very fine Wolf River, Fameuse, Tallman Sweet, and Northwestern Greening, which are standard in Wisconsin.

The following varieties are receiving the attention of fruit growers as standards in Iowa: Ben Davis, Jonathan, Grimes Golden, Benoni, Cole's Quince, Fulton Wine Sap, Fall Orange, Janet, Winkler, Maiden's Blush, Fameuse, Hass, Kaump, Iowa Blush, Duchess, Red Romanite, Wagner, Utter, Wealthy, Malinda and others. We were next ushered into the assembly room, where we found the subject of top working the apple under the white heat of discussion. Through the courtesy of the Society we were at once placed on the honorary roll of membership for the coming year, which we briefly responded to in a few words of acknowledgment. The assembly room was tastefully decorated with smilax and evergreens, and on the president's table was banked a pyramid of apples six feet in height, and the balance of the available space occupied by beautiful cut flowers, such as roses, carnations and chrysanthemums.

The program was a lengthy and interesting one, treating on nearly all subjects that pertain to horticulture, and spirited discussions followed every topic that was presented. In scientific investigations all along the line of horticultural work Iowa horticulturists are keeping abreast of the times. The subject of cross fertilization and the production of new seedlings are receiving a great share of attention, and the new and promising varieties of trees, fruits and flowers are sent to the different trial stations (which are 16 in number) with a view of determining the varieties that will succeed best in Iowa climate and soil. I cannot do justice in a brief outline

of the many valuable and interesting papers that were presented, but will say that Iowa horticulturists are thoroughly awake in their own interests and in advance of Wisconsin in the production and testing of new seedlings and in the line of scientific investigations.

It is true that Iowa can boast of her apple, plum and cherry orchards, but Wisconsin yet stands in the front rank in the variety and production of small fruits. I shall ever cherish a pleasant recollection of the many new acquaintances I formed and the many courtesies that were extended while in attendance of the Iowa State Horticultural convention in December, 1895.

OBSERVATIONS IN OUTAGAMIE COUNTY.

Mrs. D. Huntley.

The weather in the month of March, 1895, was remarkably pleasant; there were some cloudy, windy days but not one storm of rain or snow in this locality during the entire month. The bright, sunny days dried the surface of the ploughed fields, and some farmers did their seeding the last week of March while the ground was frozen two feet or more in depth.

April was a continuation of the same pleasant weather, the roads dry and dusty and no rain until the 7th, when there was a light shower. After this date, the weather was delightful the entire month with no rain till the 3d of May, when there was a severe wind storm, which fortunately did no damage in this locality. A heavy rain succeeded the wind, followed by frequent showers and fine weather. All vegetation advanced rapidly. Plum trees blossomed on 5th of May, and apple trees were in bloom three days later. On the 8th we sprayed for apple scab with "Ease Celeste," and on the 9th sprayed grapes with Bordeaux mixture. The weather was warm as summer. On the 10th of May the thermometer registered 90, on the 11th it was much colder, with rain and slight hail storm; at night there was severe frost, with slight formation of ice in exposed places. The morning of the 12th was very cold, with wind, which continued all day; thermometer only 8 degrees above

freezing. During the night two inches of snow fell, and at 10 o'clock a. m. on the 13th, icicles 6 inches long hung from the eaves on the south side of buildings. Apple trees were in full bloom, their pink and white blossoms covered with snow and ice; grapes also were in blossom but frozen on the trellise; strawberries were much injured also, and all our hopes of an abundant crop of fruit were blasted in a night. The weather continued cold for two days, freezing hard every night, till it seemed that all vegetation had succumbed to the frost.

During the week the weather moderated, the snow and ice disappeared, and then the leaves began to fall from the trees as they do in autumn, every grape leaf was killed and for three weeks the vines were as bare as in mid-winter. After this, as the weather became warm, the grapes put forth new leaves and blossoms, and gave promise of a small crop of fruit.

The summer was very pleasant, all vegetation advanced rapidly, although the weather was very dry. We had no good rains until September. The weather in that month was very hot. A small crop of grapes ripened, and on many trees there were a few apples. Strawberries were a light crop, raspberries were much injured, and currants were a total failure. Prices for such fruit as we had in this locality were higher than usual. Strawberries brought 16 cents a quart the first of the season, and very few if any gardeners sold for less than 10 cents.

The varieties of strawberries, considered best for this locality, are the Wilson, Warfield, and some gardeners say the Crescent. Of grapes we prefer the Worden for flesh, the Brighton for red, and Niagara and Martha for white.

We have had no experience with top worked trees. Our best apples are the Wealthy and Utter and Whitney No. 20. Apples sold readily at \$1.00 per bushel last season, and Whitneys always bring that price in this locality.

There was no serious trouble with insects last season. Our local Horticultural Society was organized over 20 years since and is doing good work.

OBSERVATIONS IN MONROE COUNTY IN 1895.

J. J. Menn, Norwalk, Wis.

The season of 1895 was a disappointment to many fruit growers at Norwalk and vicinity. The winter of 1894 and '95 injured strawberry plants, and was very severe on the blackberry and raspberry canes. Trees of the larger fruits were not injured. Seeding commenced early; grain was sown before the frost was all out. The ground was unusually mellow, and by the fifteenth of April small grain was nearly all in and farmers were ready for planting corn, which was about completed the first week in May. When small fruits were uncovered it was plain to be seen that the crop would be small, owing to the fact that so many canes were dead, caused by the drought of 1894 and the cold, dry winter that followed, but owing to the very favorable growing weather in April, by the first week in May all crops looked well. Apple and plum trees were in full bloom and bid fair for a bountiful crop. We, in this locality, hardly ever escape spring frosts on low lands, and the second week in May it came. Ice formed half an inch in thickness. Oats, clover and grasses were badly frozen, which injured them very much. Strawberries were badly stunted, more especially on clay soil, and what fruit we picked was from blossoms that came out after the frost. Mr. V. G. Hargove, of Wilton, had an average crop of both black, and strawberries. Many thousand strawberry plants were set in this county last spring, mostly Warfield, Van Deman and Enhance. They made a fine growth through the summer, and the prospect is good for a crop next season. Black and red raspberries and blackberries were a light crop and sold readily for ten cents per quart. The prospects for next season's crop are quite good. The buds are well developed and there was no late growth of canes. Through this section we had plenty of rain in the growing season, but after harvest very little rain fell, and in the fall many wells and some springs had dried up, but we had good rains in December. Apple trees came through the winter uninjured, but the frosts of May killed all the blossoms on low lands and some on land that was quite elevated.

On my high location I had a good crop of apples. About eight miles north of Norwalk there is an orchard of 800 trees, owned by F. Willencamp. His trees were not damaged by frost, owing to the elevation. He sprays to prevent scab and blight, nothing else. He has tried top working without success (presume he has used poor stocks—Secretary). Mr. L. Boring has the oldest orchard in this county. He began planting in 1860. He has raised many thousand bushels of apples, but lost many trees in the winter of 1884 and 5. In company with A. J. Philips I visited this orchard last August. We saw one Transcendent tree that Mr. Philips said was the largest of its kind he had seen. It was five feet in circumference and stands 36 feet high. A row of same variety are used for posts on the east side of his orchard and they have grown six inches over the wire. On most of the trees he has had good success top working, using the Transcendent for a stock. Some of the Russian varieties are bearing full crops so top worked. The fruit is handsome but of poor quality, and only fit for the hogs. A strange thing is, on his high location he has never made a success of growing the Wealthy. He had several plum trees loaded with fruit which Mr. Philips pronounced No. 1 in quality. Through this section the apples doing the best are Duches, Tetofski, Transparent, Wealthy, Haas, Walbridge, Pewaukee, Whitney No. 20, Transcendent and Hyslop, with McMahan, Longfield, N. W. Greening, Newell, Wolf River, just coming into bearing. The price was 50 cents to \$1.00 for early and a little more for later kinds, but the home demand took them all. No blight and wood in good shape for the coming winter. More apple trees sold here in 1894 than formerly and mostly Wisconsin grown trees. I like to see trees sold at a fair price, but I do not like to see the farmer robbed of his dollars by smooth-tongued agents who never pay a dollar to join our state Society, as I do not see their names in the directory in our report. I would like to see our Society fix a fair price on trees raised, and the people advised to buy only of Wisconsin nurserymen. We surely can raise our own trees in the nurseries in Wisconsin. I hope this will be talked up at the annual meeting in February. Grapes were a total failure, cherries about the same, garden products good, especially tomatoes.

OBSERVATIONS AT WEYAUWEGA.

F. A. Harden.

The winter of 1894-5 was a very hard one for trees and plants in our county. Last spring we had several thousand one and two-year-old trees root killed. Strawberries, raspberries and blackberries were also badly hurt. It was quite dry during the spring and all through the season, and there was a heavy loss of all newly set trees and plants.

Nearly all trees blossomed full, but a heavy frost came at that time and killed nearly all the blossoms. A few trees in favorable localities produced some fruit.

Cherries and currants were very scarce. Strawberries were a failure. Raspberries and blackberries were about one-half crop, where they had good cultivation. All berries sold for \$1.60 to \$2.00 per case of 16 quarts.

Apples and crabs were scarce; sold at \$1.00 a bushel.

The only insect pest that we had during the season were borers. In August they destroyed hundreds of apple trees. Can some one give us a remedy?

To let you know what we are doing in our county in the fruit business, I have taken a few figures from the certified statement to our county board last November by the deputy clerk.

For the year of 1894, number of bushels raised in the county:

Of Apples.....	7,970 bu.
Of Strawberries	552 bu.
Of Blackberries	400 bu.
Of Raspberries	219 bu.
Of Currants	60 bu.
Number of acres in apple orchard in the spring of 1895	318
Number of bearing trees.....	11,966
Number of acres of strawberries.....	22
Number of acres of raspberries.....	16 1-4
Number of acres of blackberries.....	12

Several towns did not report any fruit in them. So we know these figures are too small, as some of the towns not reported raised from five to eight hundred bushels of apples in one season, also a large quantity of small fruit.

REPORT OF J. F. CASE, EAU CLAIRE, WIS.

It has been a very good season with us, take it all through. We had some frosts, but they did not affect us much. In this section we did not have a very large crop of small fruit, but it was of good quality and nice, brought big prices; we think here that the hot, dry weather of the summer of '94 hurt it more than anything else. We had a nice crop of plums and grapes, the best we have ever had. Everything in the fruit line has made a splendid growth and gone into winter in good shape. I have been experimenting some with raspberries lately, setting them out mixed up more. I set a row of Marlboroughs and then a row of Cuthberts, and then a row of Brandywines. Set them alternate and I find they do a great deal better than they do set in plots by themselves. The fruit is larger and nicer. And I also find that by setting the coarse lobed varieties that are inclined to crumble with the Cuthberts in alternate rows, that the fruit is larger and finer and not inclined to crumble but very little. It improves them very much. Strawberries have made a grand growth and we are looking forward for big crops next season.

On raspberries I have been trying some experiments. I would remove all the new canes but four, but I would not remove the bearing canes until they are done bearing. I have tried on the Gladstone, removed the old canes in the fall soon as second crop is done and also in the spring early, but can't see that the new canes were any larger than they were where the old canes were left, but it pays to thin out the new canes as soon as they start, all but about four, and pinch them off when 16 or 18 inches high. Then they will put out some long laterals, but if you wait until they are 2 1-2 to 3 feet high there will be two or three short laterals on the top. I have heard some complain that they could not lay the canes down for

winter protection. They grew so large and stocky, they would break every time. I use a large 2 tined fork and spade. I stick the spade in the ground on the side of the hill towards me and straddle the hill with the fork, then pry with the spade at the same time, push the hill gently over with fork and stick the fork in the ground. That will hold it down until you put on the dirt to cover it. I don't break one cane in a hundred, and then you have got a stout bush that will stand up itself without any protection. I have tried wood ashes on strawberries; can't see any improvement, will try again this season, may report different next time.

SECRETARY'S NOTES.

Clarence Wedge, of Albert Lea, has been one of the orchard institute workers in Minnesota the past winters. He has kindly consented to judge the fruit at the next Wisconsin state fair. He will have some work, as Mr. A. G. Tuttle expects to be able to make the largest show he ever did. Owing to press of business Mr. Wedge has resigned his office as editor of Horticultural Department in the Northwestern Agriculturalist. Inasmuch as Mr. Wedge is the first one who sent his money to be enrolled as a subscriber on receipt of this new monthly, as the horticultural organ of his native state, we sincerely hope he will remember us with some interesting articles from his pen during the coming year.

Ten Thousand Dollars for a Flower.—A New York florist, for the sole right to the famous double carnation known as the "Murella," has paid its discoverers \$10,000. The flower has been raised and owned entirely by a firm owning a large greenhouse near Reed's Lake, Grand Rapids, Michigan. The "Murella" is one of the most beautiful carnations ever seen, being very large and of a deep red color.

"Okabena apples raised at Lake City, Minn., have kept better the past winter there in a cool cellar than Wealthy, Hibernian Anism, or any other Russians."—Minn. Magazine.

The Wisconsin Horticulturist.

MRS. VIE H. CAMPBELL, EDITOR.

APRIL PLEDGES.

April is here, with its sunshine and showers,
Its cloud-drifts, and beautiful blue;
April is here with its promise of flowers,
Sure to come true—to come true!

God hath His signature under the pledges;
Bury your seed in the earth;
E'en the anemones out on the ledges
Trust in His love, and have birth.

Poor starving babe in the heart of the city,
Wailing your little life through,
Someone is growing the heartsease of pity—
Sweet human pity—for you!

This hath God's signature, too, like the other,
Pledging love tender and true;
Pledging a race with the heart of a mother,
Caring for babes such as you.

MARION LISLE.

TO OUR READERS.

We come with our greetings to you this month, and to tell you we are very grateful for the kind words of encouragement and commendation that have been expressed to us about the first number of The Wisconsin Horticulturist. While we are glad of your appreciation, we see opportunities for improvement. We have set our standard high and shall aim to reach it by making each number better, more instructive, more helpful than the preceding one.

We have been promised articles from the pens of some of our prominent florists and gardeners, which will appear from

time to time as our space will permit. We shall also publish brief "notes from the field," gleaned by prominent growers, that will be of value to beginners as well as those who have had years of experience.

A QUESTION FOR THE GIRLS AND BOYS.

Some time ago, I planted in a seven inch flower pot a few seeds each of corn, navy beans, peas, wheat and oats. I first stopped the hole in the bottom of the pot, then put in one inch of fine moist loam. On this I scattered the seeds, after which I added more of the loam until the pot was filled up to within one inch of the brim. I packed the loam down moderately as I put it in. The seeds then had an inch of soil beneath them, and about five inches of soil above them. The pot was placed on a laboratory table, and the soil was kept moist by frequent watering.

After eight or ten days, young plants of oats, wheat, corn and peas began to appear at the surface of the soil. One by one, the tiny shoots peeped out into the light, until nearly as many of these plants appeared as I had planted seeds. But not a bean shoot appeared. I waited and watched day after day, until I was satisfied that the bean plants were not forthcoming, after which I tipped the soil out of the pot, carefully washed out the plants and used the experiment for a valuable object lesson for the students in our Short Course in Agriculture. The question to be answered was, why did not the bean plants come up, as well as those of the corn, oats, wheat and peas?

I knew that the seed of the beans was good, for I had tested it before the planting. The beans weighed, individually, about the same as the corn and peas, and much more proportionately than the wheat and oats. The beans contained more food to nourish the young plant than any of the other seeds, and we all know that the shoot of the bean plant, when it does come up, is thicker and stronger than that of any of the other seeds used. Why then should not the beans have sent up their young plants as well as the other seeds?

I want the girls and boys who read the Wisconsin Horticul-

turist to answer this question, and to make it more interesting to them I will give a year's membership to our State Horticultural Society to the girl or boy not more than eighteen years old that sends me the first correct and satisfactory answer, provided only that the answer was studied out by the person sending it. The principle involved has a broad application in the planting of seeds. This offer does not apply to the members of our Short Course in Agriculture, because they have already had the opportunity of answering the question.

E. S. GOFF,

Agricultural Experiment Station, Madison, Wis.

TREE PROTECTION.

Eds. Wis. Horticulturist: Very few realize the necessity of protecting every tree as soon as planted—one tree well set and protected is worth four poorly set with no protection.

It is quite an advantage to mark a tree, whether fruit, shade or ornamental, so that when it is again planted the same side will be towards the south, the same as it grew; that side is used to the sun and will do better if so set. This emphasizes the necessity of some shield and protection from the sun, from the day the tree is planted.

The object of this protection is, first, to keep the sun from blistering the bark before the circulation of the sap is fully established. Second, the flat headed borer does not work in the shade, and he gets in his work the first summer after a tree is stunted by transplanting. Third, the sun scald will not trouble a tree that is properly protected. Fourth, mice or rabbits will not injure (unless it be above the protection). Fifth, a lath protector will keep off the whiffletree if it gets too near the tree. Sixth, young stock will not injure the trees; this is presuming the lath protector is used, we recommend this in preference to rye straw, marsh hay, corn stalks, building paper, burlap, veneer shields or anything else.

The lath protector, properly made, will last eight years, then the tree no longer needs protection. To make the protector, get copper wire, about the size of stove-pipe wire,

cut it in strips three feet three inches long (if the lath are good and stout); the lath should be long enough to reach the lower limbs of the trees, which will vary from two to four feet (if the bodies run above four feet wrap with burlap); fasten a wire around the lath six or eight inches from the end, double the wire in the middle, give it a sharp twist, put in another lath, twist the wire, and so on till eight lath are used; if the lath are full length use three wires. The end of the wire should be long enough to fasten the shield about the tree. It rests on the ground, and it is a good plan to tuck a little straw about the open space at the top so there can be no chafing of the tree by the wind. To complete the protection tie a wisp of marsh hay or rye straw from the protector up among the crotches of the tree on the south side.

We have had inquiries from Pennsylvania and Ohio, asking where this protector was manufactured and what its price. Any one can make it; it only takes four lath for two foot protectors and eight lath, if the bodies of the tree are four feet, and a little wire. Stove-pipe wire will do very well but must not be twisted too tight or it will break.

Now let me urge every one to protect every tree set this spring; newspapers tied about the tree will answer but it is so much bother to renew; brown building paper (don't use black) will last a year, but the lath are much better; put them on when the tree is planted and don't wait for the borers to get in. Leave them on summer and winter.

GEO. J. KELLOGG.

Janesville, Wis.

L. G. KELLOGG,

RIPON, WIS.,

—General Agent for the celebrated—

White Wood Fruit Packages,

Manufactured by W. P. Mesler & Co.

Also Wiring Machines, Wire, Tacks, Nails,
Etc. Write for Prices.

THE "GARDNER."

THE KING OF STRAWBERRIES.—Plants grown from selected pedigree stock; none others sent out. The best fertilizer known. Bears the largest, sweetest and best berries; never rusts; originated here. We have the largest stock of Picea Pungens and other evergreens, growing in nursery, of any place in the Northwest. We carry a heavy stock of fruit trees, small fruits and ornamentals. Write for prices, mention this paper.

Address,

GARDNER & SON, OSAGE, IA.



EVERGREENS.

For Shelter Belts, Hedges, and Lawn Planting. Ornamental trees and Shrubs in variety. STRAWBERRY, BLACKBERRY, RASPBERRY, and other Fruit Plants, and Trees at growers' prices. Price list free.

W. D. BOYNTON,

Shiocton, Wis.

Lake City, Minnesota, Nursery Company

Grow Okabena and other hardy trees. North Star Currants, and have a choice collection of Seedling Plums for Grafting.

E. P. Stacy & Sons,

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Our Specialties: Berries, Vegetables, Etc.

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F. W. LOUDON,

JANESVILLE, WIS.

ORIGINATOR OF . . .

Loudon Red Raspberry,

Said by good fruit men to be the best sucker variety known.

BERRY PLANTS.

Grown and for Sale by

J. F. CASE, Eau Claire, Wis.

The choicest of the old and new Strawberry Plants, viz.: Eureka, Van Deman, Great Pacific, Warfield, Parker Earle, Bubach, Greenville, Badger State, and Princess. Cuthbert, Brandywine, Marlborough, Golden Queen, Nemaha and Ohio Raspberries. Erie and Stones Hardy Blackberries. Grape Vines, Lucretia Dew Berries. Well packed, good count, and low prices. Send for catalogue.

POTATOES Cheap for No. 1 Stock. Only \$1.25 per barrel.

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