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Wisconsin State Cranberry Growers Association
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• SEVENTH
• ANNUAL
• PROCEEDINGS

• • • • OF THE • • • •

• WISCONSIN
• STATE

GRANBERRY GROWERS'

• ASSOCIATION

• ANNUAL CONVENTION:

• AUGUST 8, 1893,

• AT MARSH OF

• A. C. BENNETT & SON.

• ANNUAL MEETING:

• JANUARY 9 AND 10, 1894,

• AT GRAND RAPIDS.

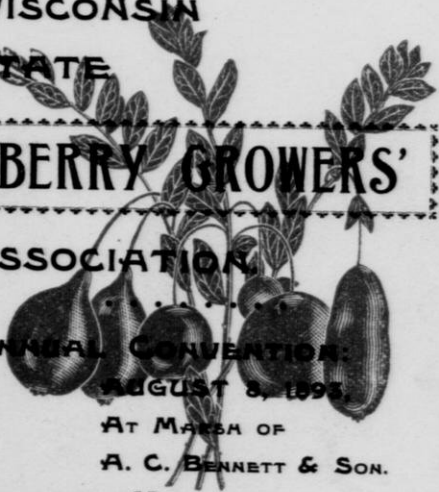
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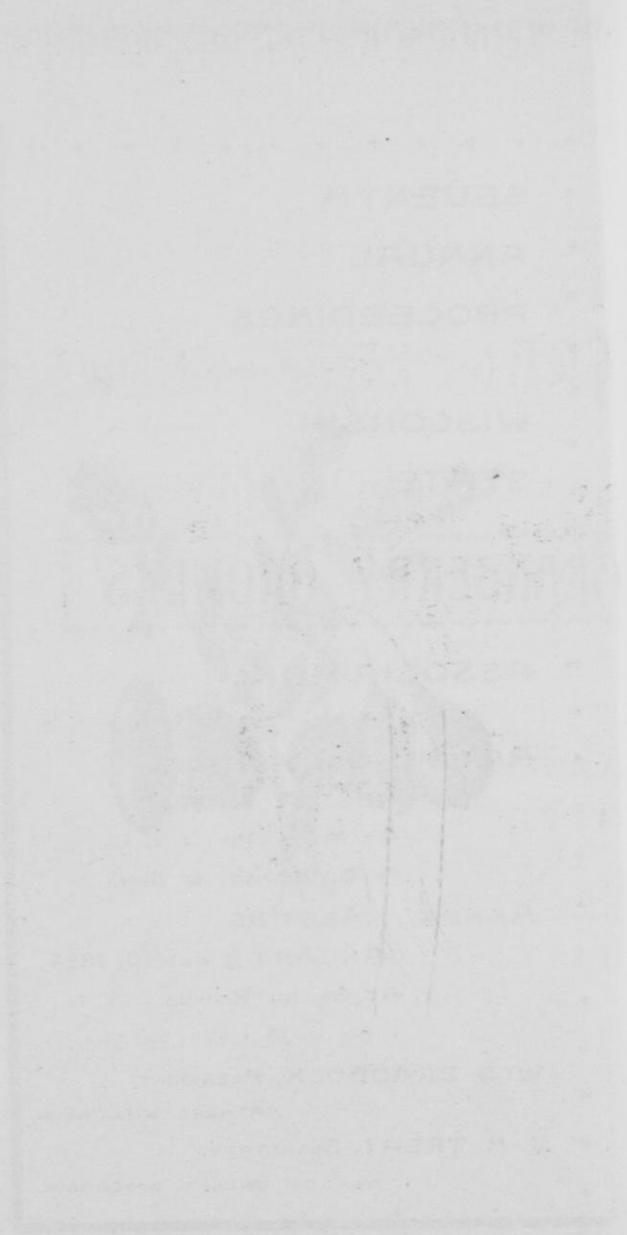
• W. S. BRADDOCK, PRESIDENT,

• MATHERS, WISCONSIN.

• J. H. TREAT, SECRETARY,

• MEADOW VALLEY, WISCONSIN.





Seventh Annual Proceedings

OF THE

WISCONSIN STATE

CRANBERRY GROWERS'

ASSOCIATION.

ANNUAL CONVENTION:

AUGUST 8, 1893,

At Marsh of A. C. Bennett & Son.

ANNUAL MEETING:

JANUARY 9 and 10, 1894.

At Grand Rapids.

W. S. BRADDOCK, President,
Mathers, Wisconsin.

J. H. TREAT, Secretary,
Meadow Valley, Wisconsin.

CENTRALIA, WISCONSIN.
LUEHR & BRUNDAGE, PRINTERS,
1894.

SEVENTH ANNUAL PROCEEDINGS
OF THE
WISCONSIN STATE
CRANBERRY GROWERS' ASSOCIATION

LETTER OF TRANSMITTAL.

TO THE HONORABLE GEO. W. PECK,

Governor of the State of Wisconsin.

SIR: I have the honor of presenting to you, in requirement of law, the Seventh Annual Report of the Wisconsin State Cranberry Growers' Association, containing papers read and discussions thereon, together with an account of moneys received and disbursed for the year 1893.

Respectfully yours,

J. H. TREAT,

Secretary.

Meadow Valley, Wisconsin,

January 15, 1894.

W. B. BRADDOCK, President,
Meadow Valley, Wisconsin.
J. H. TREAT, Secretary,
Meadow Valley, Wisconsin.

CENTRAL MARKING
MILLS & TRADING COMPANY
1894

PROCEEDINGS

OF THE AUGUST CONVENTION, HELD AT THE MARSH OF A.
C. BENNETT & SON, AUGUST 8, 1893.

The morning was spent in looking over the improvements of Messrs. Bennett & Son, who have one of the largest scalped bogs in the State.

The session was called to order by President Braddock at 1:30 p. m.

The statistics as compiled by Mr. Willis L. Moore, Director of the State Weather Bureau, of the crop in sight, made a total of 112 per cent., or about that many thousand barrels; but as the reports from which Mr. Moore compiled the report were made nearly a week before, and in the interval frost, excessive heat and drouth had materially reduced the crop, it was decided to withhold the publication of the statistics until after the next weekly bulletin was issued.

Mr. Moore then spoke briefly, as follows:

GENTLEMEN OF THE WISCONSIN CRANBERRY GROWERS' ASSOCIATION: It is with much pleasure that I am able to accept your kind invitation and meet with you to-day. In the several hours that I have been with you preceding the opening of this convention, I have carefully looked over the magnificent stretch of marsh land which for many years after the settlement of Wisconsin lay in its virgin state, but which to-day, under the enchanting hand of our friend and genial host, has been transformed into a veritable garden spot for the production of that most healthful and palatable relish—the Wisconsin cranberry. I have inspected the heavily laden vines, the fruit of which will in a few weeks mature into golden dollars if the cold and blighting breath of your inveterate enemy can be kept from your precincts.

It might be well here to speak of the conditions under which frost forms. If a thermometer were placed in a pitcher of water in this room, with the present high temperature, and pieces of ice placed in the water, moisture would soon collect on the outside of the pitcher, due to the warm and humid air coming in contact with the colder surface of the vessel and having its aqueous vapor condensed. Now the same principle is operative in the formation of dew. After sundown the loss of heat by radiation from the surface of the earth and from vegetation is more rapid than it is from the lower strata of air to the higher regions, and many times during the early hours of morning the temperature of vegetation falls considerably below that of the surrounding air, and the vapor of the latter is condensed upon the vegetation just as it is upon the cold surface of the pitcher in this room. This is not a theory; it is a simple and well demonstrated principle in physics. To carry the application a little farther, we will say that frost forms in the same manner as dew, but under the influence of a lower temperature, which causes the vapor to be precipitated in the congealed state. We must not make the mistake of considering frost as frozen dew. No, the leaf of vegetation freezes the vapor from the air without allowing it to pass in the liquid form at all. In the studies which I have made under the direction of Prof. Harrington, my chief, for the purpose of issuing frost warnings for your benefit, I have made much use of the minimum temperature readings carefully recorded by your secretary, at Meadow Valley, and by others of the excellent corps of voluntary observers of the Wisconsin Weather Service located in the cranberry marshes. I find that the minimum temperature in these marshes, during the drier season of the year, often fall 10 or even 20 degrees below the temperatures telegraphed from cities and towns within 50 or 100 miles of the marshes. This is due to the fact that when the loose spongy peat of which the marsh is composed to the depth of several feet has dried out, the radiation of heat during the night is very rapid, and the diurnal range of temperature great. The temperature, therefore, in the cranberry marsh, is at times much lower than that which obtains in marshes composed of heavy black muck, where it preserves a stable condition, such as is common to air resting over a considerable body of water. The sandy soil lying between the marshes also readily parts with its heat when the source of supply is cut off by nightfall.

The cranberry marsh therefore does not enjoy that immunity from frost which other marshy and watery land gets the benefit of. When the ditches are flooded the water quickly percolates through the peat composing the marsh, and the rapid loss of heat by radiation is checked and frost averted.

During three seasons I have observed heavy and damaging frost in your marshes on nights when the tobacco fields within a hundred miles or less to the south had none. Again the difference in the heat radiating properties of the soil must be looked to for the cause, as the difference in latitude is not enough to account for it.

As to the accuracy of frost warnings, it is not claimed that the most expert forecaster will always be right. It is not a thing which can be figured out with mathematical certainty, like the date of an eclipse for instance. It is a matter of human judgment, and so long as the forecaster is fallible, the warnings must of necessity be subject to some error. However, whenever you receive a warning of frost you may be assured that a cold and frosty condition is developing up in Minnesota to the northwest of you, and that your section is in danger. Clouds check the loss of heat and reflect it back to the earth to such an extent that frost never occurs on a cloudy night, and the rapid and unexpected formation of clouds sometimes causes the failure of a frost prediction.

But I believe that these warnings have been of benefit to you, and the complimentary resolutions of this association are fully and heartily appreciated by me, for they testify that the efforts of the Director to extend to your industry the benefits of the Weather Service have not been wholly in vain.

I hope to have the pleasure of meeting you again, and in the meantime if I can be of further use to this association or to any of its members, you have only to command me.

A vote of thanks was tendered to Mr. Moore for kindnesses received from his office.

The President then introduced Mr. A. J. Rider, Secretary of the A. C. G. A., of New Jersey, who spoke of the efforts that were being made in the east to extend the sale and use of the cranberry in foreign countries, urging the co-operation of the western growers, stating that the east was practically united in the matter, and that the matter rested wholly on the Wisconsin men. Now, if they would put their shoulders to the wheel, the scheme would at least have a trial, and with every expectation of success.

Mr. Small, of Cape Cod, also spoke in favor of the scheme, stating that the Massachusetts growers were enthusiastic in regard to the matter.

Several of our members spoke in favor of signing the agreement, and when the agreement was circulated enough of the growers signed to make the trial an assured fact.

A recess was taken to enable Mr. Bennett to arrange the crowd in front of his dwellings when the man with the camera took a couple of snap shots at the crowd.

Upon being again assembled, business was resumed by J. A. Gaynor reading the following:

The absolute needs of the human race are food and shelter. The production of these must ever remain the

chief end of all human activities. It is only when man's productive powers are in excess of his absolute and immediate wants that civilization and progress are possible. Until men are well fed, well housed and clothed, the work of the missionary and moralist is in vain.

The marvelous increase in the productiveness of human labor during the past fifty years is not only the chief glory of our present civilization, but it is the most substantial guarantee of its permanency. There are good reasons for believing that even now, our productive ability is only in its infancy. When we view the lines of recent progress, we notice at once that our greatest success has been secured through the development of mechanical skill. But in the introduction and improvement of the several species of plants and animals fitted to supply human wants, we have done comparatively little.

The man who could introduce a variety of wheat that would yield twenty bushels to the acre, where before only fifteen was produced, would do more for the world than was ever done by any inventor, but he would have no adequate reward or protection in our laws for the services he had rendered, while the inventor of a trifling improvement in a mechanical device would be protected by a patent, and might make tens of thousands of dollars out of it.

The introduction of the potato and Indian corn to civilization probably did more for mankind than all the moralists and military heroes of the past century. The man who brings forth an improvement in a device by which the people of one nation are better equipped for killing those of another, is much more likely to secure a handsome reward than the man who produces an improved variety of wheat or corn with which the nations may be better fed. Ignoring the lines of effort that the world seems disposed to reward most, it is the duty of our association to cull from the wild plants of nature a new and healthful species of food, unknown to our fathers, it is ours to reclaim this fruit from the wild state in which we find it, and domesticate and cultivate it into vast varieties, as our forefathers have done with other lines of fruit. This new industry has to labor against the many disadvantages that are common to most new industries. The grower cannot refer back to the experience and gathered wisdom of his father in the cultivation of this fruit, nor to the books and periodicals for information as to the latest improvements in its cultivation.

To relieve us against these disadvantages, Chapter 263 of the Laws of 1893, appropriates annually to this association the sum of \$250.00, "to be used exclusively for the purpose of procuring and publishing information relative to the cultivation and production of cranberries."

While the purpose for which this money can be used is specific, it will on examination, be found to be sufficiently broad to cover nearly all the lines of inquiry for which we are organized; but to lay the foundation for steady and systematic progress, I would recommend some changes in our constitution and by-laws and a series of topics to be discussed at each annual meeting, about as follows:

FIRST. The best method of planting vines and the care of them until they get possession of the ground.

SECOND. The best methods for procuring, storing and using water.

THIRD. The construction of ditches, dams and bulk-heads.

FOURTH. The protection of vines from frost.

FIFTH. The protection of vines from insect pests.

SIXTH. The best methods for combating or exterminating such forms of vegetation as interferes with the growth and spread of the vines.

SEVENTH. The gathering, cleaning, barreling and marketing of the berries.

EIGHTH. The tools, implements and machinery best adapted to the cranberry growers' work.

NINTH. Report of the keepers of the experimental stations.

TENTH. To procure and establish new and distinct varieties of berries.

ELEVENTH. The best methods of protecting the vines from fire.

These are the topics upon which every progressive cranberry grower desires more information, and for procuring and distributing which our little \$250.00 may be legally expended.

On each of these subjects a standing committee of one should be appointed, and each on his particular topic should gather and report to the annual meeting each year all the information he was able to gather during the year; to which should be added the best of the comments and criticisms that might be called out in the discussion of that subject by the association.

By publishing these reports, comments and criticisms, and filing away two or three printed copies of the reports for the use of the association, we may be able to secure steady and substantial progress in the accumulation of our knowledge relative to this industry. But after paying for the printing and distribution of these reports we will have left probably between \$100 and \$150; and the question arises to which one of the several topics for information, above named, shall we apply it? For myself I have a decided conviction that we ought to open an experimental acre, upon which we would plant, in separate places, all the varieties of cranberries that we could find on our marshes, or get by importation. It takes so long to bring out and establish a distinct variety of any species, that those now living may not reap much reward from this work, but the cranberry has proved itself quite plastic under cultivation, and capable of much variation and improvement, and if we can leave to the coming generation in Wisconsin a variety of cranberry superior to any we found here at the outset, the State will be well compensated for the amount it has appropriated, and we will have the satisfaction of feeling that the world is a little better for our having lived in it.

President Braddock explained how the experiment stations of the Horticultural Society were carried on.

The matter was referred to the Executive Committee.

The matter of advertising at the World's Fair was introduced by President Braddock, who as a member of the committee, showing what had been promised in the way of concessions and aid by Chief of Department Samuels, and the State Board of Managers, and producing the manuscript of the cook book compiled by Mrs. Ellen D. Megow, which contained about fifty recipes for cooking the fruit, as well as some descriptive matter praising the fruit for its medicinal qualities, etc., with the statement that in the minds of the committee it would be a good plan for each grower to get a number and to place one or more in each package sent out for the retailer to give to the customer.

The Secretary then stated that Luehr & Brundage had made the best terms for printing the cook books, namely \$6.50 per thousand, one page of the book to be left for the personal advertisement of the grower, but that at that price we must order 20,000 copies, and take no order for less than one thousand.

Then soliciting subscriptions the following named persons quickly subscribed for one thousand each:

E. P. Arpin, J. E. Ingraham, J. A. Gaynor, W. H. Dufrane, C. M. Stevens, Spafford & Trahern, R. C. Treat, S. N. Whittlesey, A. C. Bennett & Son, G. H. Kruschke, L. M. Nash, L. S. Cohn, C. J. Kruger, Daly & Sampson, H. B. Tuttle, W. S. Braddock, D. R. Burr, F. M. Prothero, F. J. Hoffman, Wm. L. Megow, W. H. Fitch, P. Hackney.

It was voted that the association have five thousand printed.

After a discussion in regard to the benefits to be derived from a cooked fruit exhibit at the World's Fair, the following gentlemen subscribed the sums opposite their respective names for the purpose of buying fruit, sugar and other incidentals:

| | |
|-----------------------|--------|
| L. S. Cohn..... | \$5 00 |
| Gaynor Bros..... | 5 00 |
| W. S. Braddock..... | 5 00 |
| Daly & Sampson..... | 5 00 |
| C. M. Stevens..... | 2 00 |
| S. N. Whittlesey..... | 5 00 |
| F. J. Hoffman..... | 5 00 |

| | |
|---------------------|--------|
| C. J. Kruger..... | \$5 00 |
| E. P. Arpin..... | 5 00 |
| W. L. Megow..... | 5 00 |
| G. H. Kruschke..... | 2 50 |
| T. E. Nash..... | 5 00 |
| P. Hackney..... | 5 00 |

This subscription was made contingent upon the committee getting the concessions and assistance that had been promised.

This was also referred to the Executive Committee.

After tendering a vote of thanks to Messrs. Bennett & Son for hospitalities shown, the meeting adjourned.

J. H. TREAT,
Secretary.

REPORT OF EXECUTIVE COMMITTEE.

At a meeting of the Executive Committee, called and held at Grand Rapids, August 15, 1893, for the purpose of amending the constitution and by-laws of the Wisconsin State Cranberry Growers' Association, and for the purpose of examining the cranberry cook book prepared by Mrs. Ellen D. Megow, and arranging for publishing the same, and to recommend the uses to be made of the state appropriation, and to prepare for the exhibition of cranberries, and the distribution of the cooked fruit at the Exposition during the months of September and October next, the committee would recommend as follows:

FIRST. That the constitution be so amended as to create the office of Treasurer a separate office from that of Secretary, and that the Treasurer give bonds, with two sureties, to be approved by the President, in a sum not less than \$500.00. Also to change the time of the August meeting from the second Tuesday of August to the first Tuesday after the twelfth of August. Also that a more specific program be made out for the August and January meetings, and that the topics recommended by J. A. Gaynor be made a part of the program for the January meeting.

The committee have ordered printed 30,000 copies of the cranberry cook book which will consist of twelve pages, ten pages will be occupied by the recipes, and two pages will be left blank for the private card or advertisement of any person ordering 1,000 copies or more. Any person desiring 1,000 copies or more should forward his private card or advertisement, together with his order, to Luehr & Brundage, Centralia, Wis., who will publish the cook book.

The management of the fruit exhibition and the distribution of cooked cranberries at the Exposition, was left to the management of the President and Secretary.

As to the uses of the \$250.00 annually appropriated by the State to the Association, the committee recommended

the establishment of three experimental stations, consisting of one quarter of an acre each, one to be located at or near Mathers, one at Bearss Station, and one north of Bearss Station, and that the sum of \$50.00 annually be set aside to pay for the work done on each of the stations.

Any member who discovers any vine or fruit that appears to be a distinct variety, or that possesses marked merits or peculiarities will confer a favor by sending the vine, wrapped with an ounce of wet moss in paper, and mail it to J. A. Gaynor, Grand Rapids, C. J. Kruger, Bearss Station, or F. J. Hoffman, Mathers; and at the same time send a letter telling the merits or peculiarities you have observed in the fruit or the vine. It will be planted at one of the experimental stations and a report made on it in due time.

J. A. GAYNOR,
Secretary of Committee.

REPORT OF EXECUTIVE COMMITTEE
At a meeting of the Executive Committee, called and held at Grand Rapids, August 15, 1911, for the purpose of reviewing the constitution and by-laws of the Wisconsin Fruit Growers' Association, and for the purpose of examining the constitution book prepared by Mrs. L. A. Gaynor, and arranging for publishing the same. It was determined that the book to be made at the state station and to report on the exhibition of fruit and the distribution of the cooked fruit at the Exposition during the months of September and October next, the committee would recommend as follows:
First: That the constitution be so amended as to provide for the separation from the list of members and that the Treasurer give bonds with two sureties to be approved by the President in a sum not less than \$1000. Also to change the time of the August meeting from the second Tuesday of August to the first Monday after the twelfth of August. Also that a more specific program be made out for the August and January meetings, and that the topics recommended by J. A. Gaynor be made a part of the program for the January meeting.
The committee have ordered printed 5000 copies of the constitution book which will consist of twelve pages and two pages will be occupied by the recipes, and two pages will be left blank for the private card or advertisement of any person ordering 1000 copies or more. Any person desiring 500 copies or more should forward his private card or advertisement together with his order to Lucia & Turner, Centralia, Wis., who will publish the book.
The management of the fruit exhibition and the distribution of cooked cranberries at the Exposition was left to the management of the President and Secretary.
As to the use of the \$50.00 annually appropriated by the State to the Association, the committee recommended

PROCEEDINGS

OF THE SEVENTH ANNUAL MEETING OF THE WISCONSIN
STATE CRANBERRY GROWERS' ASSOCIATION, HELD AT
GRAND RAPIDS, JANUARY 9 AND 10, 1894.

The meeting was called to order by President Braddock at 1:30 p. m.

The minutes of the August Convention were read and approved.

President W. S. Braddock then delivered his annual address as follows:

On the first of August last, the Wisconsin cranberry growers had in sight what promised to be the largest crop ever known in the history of the state. It was estimated at 120,000 barrels, and under favorable conditions, would doubtless have exceeded that limit, despite the fact that severe and long protracted drouth had partly blighted and greatly retarded the growth of the fruit on many of our marshes. But disaster came before the month was ended; a week of frosty nights found us with a meager water supply, and no means to protect the berries. The result was that fully seventy-five per cent. of the crop was frozen beyond remedy and the remaining portion so chilled as to impair somewhat the keeping quality of the fruit. Of course, the general depression in business and the large prospective yield on the eastern bogs led us to expect a low range of prices. But that this low price, coupled with a light demand should continue with so little improvement up to and beyond the holiday season, was hardly anticipated by anyone. There is no question that even with a shortage in Wisconsin, there was a greater quantity of berries grown than is required. The supply has exceeded the demand. Still I am firmly convinced that for all this, our small crop would have been sold and gone into the hands of consumers at fairly remunerative prices had it not been for the crowding of so many "Early Blacks" onto the western market. They had a large yield of this variety

on the Cape, and somehow it was settled that their best outlet was to the northwest. To my knowledge over 16,000 barrels of Early Blacks were handled by a single firm in Chicago, and I think one can safely assert that over 30,000 barrels were distributed from that city before the first of November. Our own state was flooded with them; they were plentifully scattered through Minnesota and the Dakotas. Iowa, Nebraska and Kansas got their portion, and some of them even reached the Pacific coast. They have been sold at all prices from six dollars per barrel in the early part of the season down to two dollars or less about December first, when they became worthless.

Now as a matter of fact, most of these Early Blacks were sold under false pretenses. I mean so far as the fruit was concerned, and certainly under a misapprehension on the part of most of the buyers. Nearly all of the small dealers (and I speak from knowledge, for I have talked with many of them) thought they were buying cranberries, and that they were getting their winter supply at a very low figure. They did not know, and we could hardly expect the commission men to tell them that there is about the same difference between the Early Blacks and the Wisconsin or the later varieties of the Cape and New Jersey berries, as there is between the Duchess apple and the Rhode Island Greening or the Baldwin. They know now; but unfortunately their knowledge has been gained partly at our expense and greatly to our injury. These same dealers will be very cautious in the future. When a man has been kicked by a mule it naturally takes some little time for him to regain complete and perfect confidence in the stability of things. There is doubtless room for a limited quantity of Early Blacks, and it is all right and fair if people know what they are buying; but the indiscriminate sale of such an amount of them is harmful to all growers east and west. The fewer raised the better for all parties.

The question of extending our foreign trade was pretty thoroughly discussed at the August Convention, when Messrs. Rider and Small were present. Many of our members joined the Fruit Growers' Trade Co., but it is a matter of regret that there were not more signatures. A strong organization working to a well defined plan can achieve results much more certainly and more quickly than individuals operating on independent lines. It seems to me quite clear by this time that this work is necessary and essential to the success of our industry. If a large eastern crop can delay and injure the sale of less than one-third an average crop of Wisconsin berries, what can we expect when, as is likely, there shall be both in the east and west a full crop the same season. There is hardly a single grower in the business who is not trying either to enlarge his acreage or by some better or different method of culture to increase the yield. There is a constant tendency to increase production, and although there is from natural causes great variation in the size of the crop from year to year, still statistics show that the average crop, say for the last five years, is higher than for the preceding five. We are raising more cranberries. To offset this we must either lesson

the cost of production so that we can sell more and cheaper berries or increase the demand by enlarging our market. As a matter of fact I believe both these things are necessary, for we have passed the day of high-priced cranberries, and the quicker we realize the fact and act upon it the better. However, I understand the eastern growers have not been idle. Mr. Rider has been abroad several months and is, I am told, meeting with good success in his efforts to induce the people in England and on the Continent to use the American cranberry. At the same time it is not wise to neglect the home market, which in my opinion, is the best and most easily cultivated. Something can be done in the south, and to the west and northwest there are thousands of people who seldom see a cranberry. Of course a thorough canvass by competent agents may induce these people to buy; but it seems to me that one of the most effectual means to keep their trade, so that they will make more than a trial of the fruit, is the distribution of the cook book which was prepared for the association last summer. We have always claimed that when cranberries are properly prepared, whether in the form of sauce or jelly, and placed upon the table, people would eat and ask for more. The cook book enables us to make proof of this claim, and it does prove it. Personal observation about the cooked fruit exhibit at the World's Fair last October convinced me that it was not only the best method of advertising the cranberry business, general and personal, but it is the only practical means of reaching the class of people we most desire to influence, viz: the consumer. With the consumer secure and satisfied, our success in disposing of our crop, however large it may be, is certain.

J. A. Gaynor then stated that contracts had been entered into between the Executive Committee and James Gaynor, Charles J. Kruger and Fred J. Hoffman, who each agreed, for the sum of fifty dollars per year, to conduct an experimental station of one-fourth of an acre, which would be at all times under the supervision of the Executive Committee. One of the contracts was then read by Mr. Gaynor, with the suggestion that each of the contracts be made to read one-fourth of one rod square, instead of one rod square, thereby increasing the number of varieties from forty to one hundred sixty, at each experimental station.

The reports of the conductors of experimental stations were then read as follows:

REPORT OF EXPERIMENTAL STATION NO. 1.

TO THE WISCONSIN STATE CRANBERRY GROWERS' ASSOCIATION: Your committee honored me with one of the contracts for an experimental station recommended by you at your August meeting. At that time I was so crowded

with work preparatory to gathering my crop that I was unable to find time to prepare the ground until late in November.

But in anticipation of this hindrance, and in order to avoid delaying the starting of the station a whole year, our Secretary sent out circulars asking members to send to J. A. Gaynor specimens of all varieties of vines to be found on their marshes; at the same time requesting them to gather such vines when the fruit was attached, and to describe as far as practical, the peculiarities of each.

This condition made it necessary to gather the vines and hold them several weeks until the ground was prepared for them.

I regret to say that the members of this Association, on the Wisconsin valley, responded very poorly to the call for varieties, sending in, in all, less than a dozen vines. Later I made application to our friends at Berlin, Wisconsin, Cape Cod, Mass., and Trenton, N. J., and received specimens of what was claimed to be distinct varieties sufficient to raise the whole number up to fifty-two, which are now planted according to the contract. I have a place prepared for 133 more, and hope to have these spaces filled out before the first day of November next.

I hope to have on that quarter acre every variety of cranberry vine that grows. I have made one attempt to get the European cranberry from Ireland, but it was so long delayed on the route that the vines are dead. I have received two or three promises of vines from Norway, and one promise of vines from England. Also have promises that in the early spring I will get from the states of Oregon and Washington several varieties, some of which are native and some imported. There is a cranberry native to Virginia and California that is said to be a species distinct from the three species known to us, but I am at a loss to know how I can secure it. Its botanical name is *oxycoccus erectus*.

In my effort to secure all the varieties, I do not expect that all or even many of them will prove profitable, but I will ascertain in time the merits and the faults of each, and when the qualities of each is established, I hope to experiment in producing crosses between the varieties and if possible hybrids by crosses between the species; but our main reliance for securing profitable varieties must be by artificial selection.

I have as already intimated, cleaned off and sanded to the depth of three or four inches, forty-seven square rods of ground near the middle of the west side of the NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 35, T^p 22 N., R. 4 E., a tract lying close to and just south of my cranberry house. The place was such that I had to scalp it by hand. I did not keep an accurate account, but the scalping and sanding cost me over \$50.00. It may seem like an exaggeration, but it took two men one day to plant and enter in the record book the fifty-two vines now planted. Small pathways yet remain to be cut between the eight feet square sections. If I can bring the expenses of the first year under \$100.00 I shall be satisfied.

I submit to you with this report the record book of the

station containing a plat of the grounds, the records of all the vines planted and a copy of my contract with the Association, and would respectfully ask your criticism and assistance in carrying out your design.

I should here explain that in hoarding up and keeping together the fifty-two varieties until the ground was ready to receive them, some of the descriptive letters and tags got lost or misplaced; so that I had to plant some vines without being able to note their reported qualities, or credit the sender with them. This will not happen again as hereafter I will be prepared to plant each variety as soon as it is received.

Respectfully yours,

JAMES GAYNOR.

Dated Dec. 31, 1893.

REPORT OF EXPERIMENTAL STATION NO 2.

TO THE WISCONSIN STATE CRANBERRY GROWERS' ASSOCIATION: Whereas it was determined by said association at their last August meeting among other things to establish several experimental stations in the different localities in this State, for the purpose of propagating and improving any of the best and distinct varieties of cranberries; and as one of said stations was allotted to me by your committee, to be located at Bearss Marsh, in Wood County, consisting of one-fourth of an acre, and in compliance with said arrangement I herewith submit the following report on the same, to-wit:

I selected said one-quarter acre strip from a well subdued piece, plowed and well drained, of my best marsh land, the same having been first plowed in 1891, well harrowed and seeded with buckwheat in 1892, and again plowed and thoroughly worked with a pulverizer during the months of June and July last. Having by this treatment absolutely destroyed all grasses, weeds and brush roots of every description, and as all sods and fiber of every nature has been thoroughly decomposed, I have planted a few cranberry vines of the Berlin B. & B., a very choice variety procured from Mr. A. C. Bennett, and while last season has been too dry for newly planted vines, these have made very satisfactory growth, and I expect to be able to gather a few cranberries from the same next season.

The balance of the land is now ready to be planted in rods or half rods square, to any other choice variety of vines next season, having selected three different varieties from the marsh of D. R. Burr, and the same number off my own, to be planted next season, and as many more as I may be able to procure from the different growers and members of this Association until the entire lot is used for that purpose.

It is yet an open question whether there are not as many varieties of the cranberry as of the apple family. And what varieties are the best for early or late use, and what are the most hardy and prolific bearers, the best keepers and best flavored, in my opinion, can only be determined by a thorough method of propagation and tests, and after many experiments can we determine the most desirable, as has been done with the apple, peach, plum, orange,

strawberry, etc. Other elements important to the successful cultivation of the cranberry, it seems to me, have not generally been observed up to the present time by the grower, as has been the case in the other fruits mentioned, that is, what kind of soil, and the best method of preparation, and what kind, if any, fertilizers can be used to best advantage in growing cranberries to insure a source of revenue instead of a bill of expense to the grower? Upon this point I will say that I have three different kinds of soil upon this one-quarter acre strip, consisting of (1) soil and sand mixed of equal parts, (2) all sod decomposed and (3) all sand. I intend using different kinds of fertilizers on the clear sand, at least, and perhaps on the others.

I have used a fertilizer on a piece of vines on clear sand, composed of decomposed and refuse cranberries that had lain in pile for two years. I used one bushel basket full to one square rod, and the result on three-year-old vines was one-hundred per cent. in favor of the fertilized over the other in the crop of berries last season. I have used barn yard compost on a piece of sand last summer, and I can see a decided benefit. And upon the whole I think fertilizers should have the careful attention of our experimental work to insure a successful termination in our new, but very important enterprise.

The amount expended in labor in preparation of land to date, \$25.00.

C. J. KRUGER.

REPORT OF EXPERIMENTAL STATION NO. 3.

Experimental Station No. 3 is located at Mathers, on the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec. 36, T'p 20, R 1 E, and consists of one-quarter of an acre scalped and ready for planting, with the exception of some of the small ditches, which will be put in as fast as needed to plant the vines furnished by members of the Association or secured by me. I have no vines planted as I believe the ground would be in much better condition for the growth of the vine if left subject to the action of the frost during the first winter after the scalping is done. The marsh is now ready for planting in the spring. I have several varieties of vines ready to plant in the spring. The plat of land was gotten ready at a cost of about \$25.00 for labor, and I expect that when the vines are planted the cost will greatly exceed the \$50.00 appropriated for this purpose.

F. J. HOFFMAN.

It was moved and carried that the payment on the contracts be made at each annual meeting after the report of the conductors, in writing, shall have been read and accepted by the Association.

Mr. A. C. Bennett, Chairman of the Advertising Committee, reported as follows:

MR. PRESIDENT AND GENTLEMEN: At the last winter's meeting it was voted to purchase 500 of the badges shown at that meeting and have them distributed at the World's Fair. The committee being widely scattered it was im-

possible to get them together, and as the matter was left in my hands, and I could get 1000 badges for twelve cents each, when 500 would cost fifteen cents each, I concluded to take 1000. During the early months of the Fair they were distributed on the grounds, and after some correspondence with the other members of the committee, I made the rounds of the buildings, giving the badges to exhibitors from foreign countries, in this way disposing of some 500 of them. I afterwards sold to the H. P. Stanley Co., the balance of them for \$40.00, and having received \$53.50 from the Treasurer it left me out about \$21.50. I also had at my own expense a small folder printed, which contained some recipes for cooking cranberries, some descriptive matter lauding the Wisconsin berry as palatable, healthful, etc., as well as an advertisement of my own, and distributed several thousand of them on the grounds.

President Braddock, Chairman of the Committee on the Cooked Fruit Exhibit, briefly explained what had been done in that line, with the statement that in his judgment could we have had the exhibit running through the six months instead of only six weeks, it would have been money well expended. What was done cost the Association almost nothing, having received within \$7.00 of the amount paid in.

A. C. Bennett—GENTLEMEN: I am satisfied that the exhibit was the most successful advertising scheme that could have been devised. People remember when you teach them through their stomachs.

The report of the Treasurer was then read, showing balances as follows:

| | |
|--|---------|
| Balance due Treasurer on general fund..... | \$ 2 84 |
| Balance due Association on cooked fruit exhibit, | 25 43 |
| Balance due Association on State appropriation, | 210 50 |

Moved by J. A. Gaynor that the Treasurer pay to A. C. Bennett the sum of \$21.50 from the balance on hand of the cooked fruit exhibit fund, and turn the balance of that fund into the general fund. The motion prevailed.

The following committee consisting of W. T. Jones, C. J. Kruger and J. A. Gaynor was appointed to audit the accounts of the Treasurer and report later.

It was moved by J. A. Gaynor to amend the constitution so as to create the office of Treasurer a separate office from Secretary. Motion prevailed.

Amendments to the Constitution and By-laws were also made changing the time of the August Convention to the

first Tuesday after the 12th day of August, and having a more elaborate program for the January Meeting. (See Constitution and By-laws as amended in back of this book.)

The election of officers resulted as follows:

President—W. S. Braddock, Mathers.

Vice President—S. A. Spafford, Grand Rapids.

Secretary—J. H. Treat, Meadow Valley.

Treasurer—A. E. Bennett, Grand Rapids.

The above officers with J. A. Searls will comprise the Executive Committee.

A salary of \$40.00 per annum was voted the Secretary.

The Secretary then read the following report which was accepted and ordered printed as part of the proceedings:

REPORT OF THE SECRETARY FOR THE YEAR ENDING JAN.
9, 1894.

MR. PRESIDENT AND MEMBERS OF THE WISCONSIN STATE CRANBERRY GROWERS' ASSOCIATION—*Gentlemen:* As you will remember, your Secretary was instructed at the last annual meeting to (1) secure a sufficient number of Bulletin "K," issued by the New Jersey Experimental Station which treats wholly on insects injurious to the cranberry and to furnish one to each member. I wrote to Prof. Goff, of the State Experimental Station, asking if their office could not either secure a sufficient number from the New Jersey Station or print them for us from a copy of that bulletin. He referred the matter to Prof. W. H. Morrison, who was at the head of that department. Mr. Morrison wrote me at once that they would do so, but suggested that as State money would be used for the purpose every grower should be as much entitled to the bulletin as our members, and requested me to send him a list of every cranberry grower in Wisconsin as far as possible. I immediately complied with his request, and the books were published and mailed from that list, and a large number were sent to me for distribution. I will here state that any grower who did not receive one or more copies will be furnished them gratis by sending a postal request for them.

(2) To secure a crop reporter from each shipping station, while the President was empowered to appoint a statistician. I sent a copy of the report to Mr. Willis L. Moore, Director of the State Weather Bureau (marking the paragraph where a vote of thanks was tendered to him for kindness in sending special frost warnings) and I soon after had a very generous letter from him offering to act as statistician, and to get out the weekly bulletin and mail to our members only. After conferring with President Braddock I accepted the kind offer and at once began correspondence to secure the reporters, with the result as read in report of the meeting. The program was carried out on lines decided upon by Mr. Moore and myself, while visiting him at his office, that was to publish a general statement of crop

conditions, during the summer, in his weekly crop bulletin, until after the August convention. When the estimates would begin to be made, a special bulletin would be issued and mailed only to members.

The department at Washington having written Mr. Moore that the franking privilege could not be legally used for these special bulletins, I sent \$5.00 to him with which to pay the postage on them, he having furnished blanks and franked envelopes for the use of the reporters. This \$5.00 was the only expense attached to the matter, and I leave it to your judgment as to the benefits derived, and whether the attempt be made another season or not.

(3) To make an appeal to all known cranberry growers for subscriptions for advertising at and during the World's Fair.

I had printed and mailed to every grower I knew of, a copy of the following appeal:

"TO THE CRANBERRY GROWERS OF WISCONSIN—*Gentlemen*: The Cranberry Growers' Association of the State, after thoroughly canvassing the matter, have come to the conclusion that some effort must be made to increase the consumption of cranberries in order to secure fair prices for our fruit, especially in event of a large crop, and think if the fact be generally known that the cranberry was the healthiest fruit grown, and of great benefit in the cure and prevention of various diseases, notably la grippe, cholera, dyspepsia, etc., it would materially increase the use of them, and a committee consisting of Mr. A. C. Bennett, Mr. G. H. Stansbury and President W. S. Braddock, have been appointed to make an effort in that direction the present season, and as it will be necessary to incur some expense it was thought proper to invite the co-operation of every grower in the west, as what benefits one benefits all. A small contribution from each one of us will, we confidently expect, be money well expended; hence this appeal to the grower to forward to the Treasurer any contribution of \$5.00 or less, which he is disposed to subscribe, which will be turned over to the committee to be used for this purpose. A report accounting for all moneys received will be made at the next annual meeting and mailed to every subscriber. Gentlemen, time is money and the sooner the articles begin to appear the more widely will they be copied, and the more benefits derived from small amounts invested.

I have already opened an account with the advertising fund and will acknowledge all contributions. Send them in.

Yours Truly,

J. H. TREAT,

Sec'y and Treas.,

Meadow Valley, Wis."

The amount of moneys received is stated in the Treasurer's report, and the use made of it. We will expect to hear from the advertising committee. I think this was all of the special duties imposed on the Secretary at the last meeting.

Yours Truly,

J. H. TREAT,

Secretary.

The President appointed J. A. Gaynor, L. M. Nash and A. E. Bennett as a committee on program for the next annual meeting.

By request of the meeting, J. A. Gaynor promised to explain the process of cross fertilization, thereby creating a cross or a hybrid, at the morning session.

H. B. Tuttle had on exhibition a sample of very fine berries that he had named the Parmiter. Also an apparently distinct variety of a light colored berry of good size and apparently a good keeper, but owing to the prejudice against light colored fruit not a good seller.

Chas. Briere showed two cans of berries put up by him in 1891, which had kept in fine shape, showing that if properly put up cranberries could be canned in tin.

It was decided to call the next annual meeting to order at 9 a. m. sharp.

J. A. Gaynor then introduced the following resolution, which after some discussion was adopted:

Resolved, That the keeper of each of the experiment stations be required to note, in the record book kept for that purpose, the number of each vine, from whom received, when received, when planted and the qualities claimed by the sender. He shall also note in due season, each year, the qualities of the vine, as to the time at which it starts to grow, size of stem, its rapidity of growth, its tendency to produce runners and to produce uprights, when it ceases to extend and begins to form terminal buds. He shall also note the size, form and color of the leaf and the time of blossoming; also the size, form and color of the mature fruit; the time when the seeds show color of ripening; the uniformity in the shape, size, color and time of ripening of the fruit; the largest number of berries on a single upright; the average number of berries on all the bearing uprights; the number of matured uprights that failed to give blossoms, and such other peculiarities as he may observe.

Meeting adjourned until 9:30 a. m. Wednesday morning.

WEDNESDAY MORNING SESSION.

Meeting called to order by President Braddock.

J. A. Gaynor then proceeded to show how to cross-fertilize the blossoms, using a lily to show the process. He also explained the principle of plant life and growth as common to all plants; how manure was utilized by the plant, and expressed the hope that some scientifically in-

clined grower would experiment at crossing the blossoms, with a view of getting some extra fine varieties.

A. C. Bennett read the following paper on marketing:

MR. PRESIDENT: I came nearly three hundred miles to attend this convention, because I believed I could make it pay in dollars and cents, and you know if I can make any money out of it, I am willing that each of you should have an equal chance to make some, provided you are willing to join in and help me make some too. I was fully impressed last fall that I was compelled to sell my berries for \$1,000 less money than I ought to on account of some cause which I did not fully understand. I knew well enough that somebody was playing fool and that I was being fooled.

Early in the season I could have contracted every berry I had to the retail merchants at \$6 to \$7 per barrel, and the retail merchant would have retailed them at ten cents per quart. This would have given them a good, fair profit, and they would all have been satisfied, and certainly their customers would have been satisfied also, as they pay ten cents a quart anyway. Now until the retail merchant is willing to sell them below ten cents a quart there is no reason or justice in the grower receiving less than \$6 to \$7 per barrel, no matter how large the crop is. It is plain to be seen that the retail merchant does not sell any more berries at ten cents a quart when he pays four cents than he does when he pays seven cents, so the sale is not increased because we take less than we ought to.

I sold a great many barrels of berries at a fixed price of \$6 per barrel, but before shipping them the price went down, and although a fair square bargain had been made at \$6, we did not dare to ship them and bill them at that price where the orders were taken for late shipment. My argument with the merchant in selling was that at \$6 per barrel he could retail them at ten cents a quart and make a fair profit. They were all satisfied and would have been if others had not made a lower price. I visited wholesale houses in Chicago, St. Paul, Minneapolis and several smaller places, also the wholesale grocery houses in many places looking for the fellow that was playing the fool, and where do you think I found him? I will tell you. Instead of one or two I found a nest of some three hundred of them; a nest so big that it covered three states, and they were all growers. Many of you here before me were unwilling partners, so you think, but I have come here prepared to show you that there is a better way and that you need not rob yourselves or play the fool any longer. I found that Messrs. Stanley Sons and Thacker Brothers, who had been the largest purchasers of the Wisconsin crop in other years, had put their heads together and agreed not to buy cranberries at any price and so compel the growers to submit to letting them have them to sell on commission. I got far enough inside the ring so that I feel safe in saying that I know this to be a fact. These parties controlled the market of the west, and when this combine was formed the usual outlet channel for the western berries was completely closed.

The result was they got all the cranberries they wanted to sell on commission for a long time.

I do not blame Thacker Brothers nor Stanley Sons, but I do blame the cranberry growers, both east and west. They should have all put their heads together years ago, and with a voice of thunder said, "No, sir, no, sir, we will not let any man or set of men have one single barrel of cranberries to sell on commission." If the growers east and west had said this and stuck to it, do you suppose there would have been no market for cranberries? If these men did not have money enough to buy the cranberries in times like these, would it not have been better to have sold them the berries at some fixed price, taking part cash and their notes for the balance, due in thirty, sixty or ninety days? Then you would know what you were doing. The commission business is all right for the commission men, but it is death to the grower.

It works like this, as one commission man in a western city said to me, "We don't care a fig for the grower. What we are after is our commission, and if we can't sell at one price we will at another, and it makes no difference to us what the grower gets." But he added, "It would be a great deal better for you to fix a definite price on your goods and sell for cash. We are able to pay cash for our goods, and we don't care what price we pay, only so we can know that our competitors cannot get them for any less; but we cannot afford to put our money into your kind of goods at a fair price so long as our competitor can get them to sell on commission and make his own price. He is bound to undersell and cause us loss. If every commission man and every wholesale grocer had bought their berries and paid for them at some fixed price—say \$5 per barrel—then every cent they could get above that price would be their own, and they would be interested to keep up the price. Then if the wholesale houses want to cut each other let them do it. We will take our chances. Here for instance," he said, pointing to a basket of grapes from the Chautauqua and Northeast Grape Union, "the price of these grapes is fixed every day by the growers' union at Brockton, New York. The packages are uniform and always full weight, and are inspected by the union agents. If we buy their berries we have to pay their price, and subject to their inspection; but we know that they are uniform, and that our competitors do not get them for any less money. If they cannot sell to the wholesale houses in a place like this, they will sell to the retail trade, and it blocks our sales on other grapes and creates a demand for theirs."

Now, grapes are raised all over the world, and if twenty-one shipping stations from Erie to Angola can unite and fix their own price, and sell subject to their own inspection the vast amount of grapes grown there, which far exceeds our cranberry crop, then it is a sure thing that the cranberry growers, with their limited territory can do the same. All it needs is united action. They have a central office at Brockton, where the price is fixed each day by the executive board. They have a chief inspector at the head office, and he, together with the board of directors, appoints the neces-

sary inspectors for the whole district. I have a copy of their constitution and by-laws, which contain many good points well adapted to our case.

I have also a copy of the constitution and by-laws of the Fruit Growers' Union, of Ripon, Wisconsin, incorporated in 1890, which last year shipped thirty-five straight carloads of fruit and twenty carloads in smaller shipments, making fifty-five carloads in all. I also have letters from their secretary stating that it has proved a complete success. They raise currants, gooseberries, raspberries, blackberries, strawberries, etc. They inspect their own fruit and fix their own price. These fruits can be raised from Maine to California, and from the Gulf of Mexico to the Arctic Ocean, and yet they have handled their crops as one man for the last three years with great satisfaction.

There is also another society at Denver, Colorado, operating under the same form, and I think there are several in California and other places. It may be that we can improve on their system, but in matters of this kind it is generally safer to follow the course that has brought success to others.

There is one thing that I do feel sure of, and that is that the time has come when definite action in this matter has become a necessity. I came here loaded to the muzzle with the dynamite of indignation. I feel as though I had lumberman's spikes in my boots, and I want to forever stamp out the practice of consigning the Wisconsin cranberry to be sold on commission. Let us all use our best endeavor to induce the East to join with us and overthrow this monster evil. I think after the past year's experience they will be willing to do most anything to escape a repetition of the losses they have suffered.

The coming season will bring to Wisconsin a light crop at best, and on that account it will be a favorable opportunity to put some definite plan in operation. Then we will know better how to run the machine when we get larger crops.

If we want men like Stanley Sons and Thacker Brothers to buy our berries and pay cash for them, we must protect them and not sell part of the crop to them at a fixed price, and then send a few stray car lots to others to be sold on commission, and thereby break the markets. I know that Stanley Sons were disposed last fall to get \$5 per barrel for the Wisconsin crop, and would have done so, if it had not been for some snide houses offering berries for less money. How could Stanley Sons get \$5 per barrel when half a dozen other houses were quoting fancy Wisconsin cranberries at \$4.25 to \$4.50 per barrel? I could pick up these quotations all over the country, and so early in the season that I knew full well that there was not a decent cranberry that had gone to the market from Wisconsin. In fact, I do not think that at that time a single Wisconsin berry could have been found in Chicago, as I had just left Chicago, and was on the market the Saturday before. I say again if we can do no more let us stop the commission business on cranberries. What would our farmers have left if they were to place all their wheat, corn, oats, barley,

rye, potatoes, pork, etc., to be sold for them on commission? They would not get the value of the bran from the wheat or the rind from the pork.

I tried to sell Stanley Sons a carload of early berries at a fixed price. They wanted the berries and said they could place them that week at good figures, but wanted to handle them on commission and would give me liberal cash advances, etc. I told them my son and I were opposed to placing cranberries to be sold on commission; that it was against our rules to do so. He said it was against their rules to buy any this year, for some time at least. I told them my son might do as he saw fit, but as for myself before I would place any berries to be sold on commission I would sell them at half price and know what I was doing. I said, "You can afford to pay me as much for my berries as I could expect to get out of them if you handled them on commission. I see nothing to gain and I do see a chance to lose." He said, "You are right there, and I don't know as I blame you any."

In the last annual report of the American Cranberry Growers' Association, on page 10, I find some interesting remarks, coming as they do from Mr. Collings, one of the largest buyers and also growers in the East. Mr. Collings says, "How to get the largest prices for our berries after we have gone to the expense of growing and harvesting them, is the question. Some years ago, and not very long either, the berries were sold by commission merchants. Growers would distribute them through the season all over the country to different cities east and west. When the commission man receives these shipments he is interested so far as his commission is concerned and what there is in it, but go they must and the sooner they are sold, the quicker he can get his money and order more. Consequently the market is often sold down and the price broken, when there is no necessity for it, and the grower has to suffer. You have all had some experience in that line. I am glad things are changing, for the better berries are being bought up by the crop and by the carload by large dealers, and shipped either on joint account or sold outright. In this manner we get much more satisfactory prices. When the dealer buys his berries he does his best to keep the market up so he can realize a profit; while the commission man will let them go if he can find a buyer and often at low figures. I purchased this season over twenty crops, and had them shipped in car lots. Otherwise many of these would have been sent to market on commission, thereby depressing the price. There is another matter I would like to bring before this meeting. Why could not the large growers and dealers get together and set a price, as they do east, and dispose of their crop in much the same way? If it pays such men as Makepeace, Briggs and others, why will it not pay us?" These remarks of Mr. Collings were made one year ago. I wonder what he thinks now of the retrograde movement of the past year.

There is another bad feature of the commission business, and that is that in Chicago, at least, the commission man takes all the whole world would send him. He never says stop, though he may know full well that he has more

on hand than he can properly care for, or any legitimate trade of his demand. In this way berries which should be sold early are often stored in back of later and better keeping berries, and many become nearly a total loss. It also creates an unequal distribution by piling up so many in so few places. Large buyers, if few in numbers, can easily combine and put their own price on our goods. Then they are no better than commission men.

To illustrate this, I need only to quote the words of Mr. Nash. In 1889, page 26 of our report, he says, "We all know that but two or three commission houses in Chicago, and so far as I know not any in other western cities, make a specialty of cranberries. To these might be added two or three wholesale grocery houses. Now our illustration of the methods pursued by these houses will show that their interests are not the interests of the cranberry growers. At the August meeting of this Association, it was stated upon the authority of the Association that with the prospect of a light crop, estimated at 5,400 barrels, it was thought good fruit would bring \$7.50 to \$8.00 per barrel. About ten days after this meeting I tried to find market for my crop, and commenced by asking the price suggested at the meeting. Soon I began to receive replies, all of the same tenor—Messrs. ———, of Chicago, have quoted me Wisconsin bell and cherry berries at \$6.25 or \$6.50 per barrel, delivered according to the rate of freight. Happening to see a representative or member of this firm, I asked him how it was he quoted berries so low before the berries were gathered or the volume of the crop known. He said, "We did not put out quotations until we learned that our competitors, Messrs. ——— had done so." "Yes, but you say you have not yet contracted any berries. How do you know you can get any at such a price?" "Oh, don't you fret. We will make most of you come to those figures." And so they did. Wherever we went we found the price had been placed on our crop without our knowledge or consent, and except for the fear of revolt, the parties I have in mind might just as well have fixed the price of our product at \$5 or \$3 per barrel as the arbitrary figure they did name. I made diligent inquiry and ascertained that though no contract had been made, many growers had bargained away their berries, (the price to be fixed later on) receiving by this arrangement advance money with which to pick their crop. The lack of ready money by some growers is the club the commission men use to make most of us come to the figures they name in their circulars sent out to dealers."

Throughout the country this is as true to-day as it was five years ago. Fellow members of this Association, let us open wide our eyes and see if we have any friends. Let us see if there is any one for whose sake we should make any sacrifice whatever. Instead of holding our crop and awaiting the pleasure of one or two buyers, who may easily combine at any time, let us put our crops in the best possible shape for the market, put them in uniform packages and make every barrel pass a rigid inspection of our own. Let us fix a reasonable price on them from time to time, and send out circulars or representatives to sell our berries, and

let us have the whole world for buyers. If we have no other friends let us be friends to each other. Let us meet one combination with another. What others have done, we can do. Sometimes revolt and revolution are honorable, and even the taking of life is justified in self-defense.

These constitutions and by-laws show a better way of disposing of our crops, and I sincerely hope we may adopt some plan which shall enable us to inspect our own berries and sell at our own price. If we cannot sell them, let us sit on them and hold our position until doomsday, or the barrels rot from under us.

A number of years ago a man on Cape Cod discovered a variety of cranberries that ripened two or three weeks earlier than the common cranberry. For these he received an extra high price as an early berry. This stimulated production, and soon led to an over production. They are known as the "Early Black," and they are among cranberries what may be called a fall cranberry, the same as the fall apples; and although they look hard and fine like all early fruit, they go to decay like the "Duchess" apple. The eastern dealers soon discovered their early rotting, and rejected them except for immediate use in the fall, and for several years they have been compelled to seek a western market where they were but little known. There they are seldom sold under their real name, "Early Black," but are sold as fancy "Cape Cods." Instead of the fancy price they used to bring in the East they are now sold both East and West like fall apples—for what they will bring—depressing the market to such an extent that on Cape Cod, instead of extending their cultivation, they are destroying the vines to make room for later varieties. It is this "Early Black" that is playing the mischief with our Wisconsin prices. Many merchants buy winter stocks of them because they are cheap and look fine, and they do not know any better. The agents of the wholesale houses tell them they are all right—good keepers, etc. But the western merchants will learn in a few years by bitter experience that there is a vast difference in cranberries, and if we are going to sell our own berries one of the first things to do would be to educate both the western jobber and his customers so that no matter what the barrels are branded, they can know the "Early Black" at sight. Without special instruction the ordinary merchant would be several years in learning, but let us tell him that when fully ripe they are darker colored than the better grade of cranberries; that the skin is tougher and thicker; but that the best test of all is to select a few of the riper ones, break them open and they will find red streaks in the pulp of the berry; and by comparing the shape of these with the other berries they will very soon be able to spot all the "Early Blacks" at sight. These berries will rot very soon and it is not right or just that our Wisconsin berries should be put on the market at the price of this fall fruit, any more than that good winter apples should be sold at the price of fall apples.

Here again the growers are to blame, and especially the Wisconsin grower, as we have no fall fruit to sell. Our cranberries, if properly gathered and cared for, are good

keepers. If we organize to sell our own berries and blow our own trumpet, we will soon be masters of the situation, and the "Early Black" will be sold for what it really is, and we will no longer be compelled to sell a good winter berry at the price of this fall fruit.

I do not blame the eastern growers for sending these berries here to sell, but when they are sold under names calculated to deceive, and when they are forced on to this market by brokers, whose agents tell their customers that they are good winter keepers, it is a greater injury to the eastern grower than it is to us, as it gives them a bad reputation, and soon a reaction must come, as it did in the east. The eastern grower is honest and sells them for what they are. It is our own western jobbers that are deceiving the retail merchants. Let us properly locate the disease, and then fearlessly apply the remedy. Let them have rope enough and they will hang themselves. But life is too short to wait for them to run their course. Educate the merchant and make such frauds impossible.

I have just received a letter from the Hon. A. J. Rider, whom you all remember. It is dated at London, Dec. 16th, and I am very glad to say that Mr. Rider is meeting with success. I knew full well that if any man living could make a success of the foreign trade he was the man to do it. He is in the prime of life, a thorough, practical business man, with years of experience as President of the Business College, of Trenton, New Jersey. He is a western man by birth and early education. He became an enthusiast on the foreign trade market for cranberries, and spent time and money until he stirred up the east and west as no one man had ever done before. Then he left his high position and home comforts, crossed the ocean, and single-handed, with a keen intellect and vast breadth of comprehension, he is laying the sure foundation for future trade. Let us all rejoice at his success, and I think every grower after hearing his letter read will be willing to furnish his share of the rocks on which to build. Mr. Rider is a very honest, conscientious man, and he would not take another dollar from any of us if he could not plainly see from his present experience well-grounded hopes of success. I do not know what the society pay him, nor do I care. Such men are rare and are cheap at almost any price. It is fortunate for all that such a man was willing to be a missionary.

But let us not forget our home duties. My idea of handling our crops is this, to *all* unite, select an executive board of five members interested in the business; let them have exclusive control of the selling and grading of the berries and branding of the same; let them appoint one chief inspector, and employ such means of disposing of the crop as, in their judgment, shall be to the best interests of the growers; and fix the price of the same as often as they deem necessary.

If this executive board places men on the road to sell the berries, the agents could keep them well informed as to the prices of our competitors, so that they could change the price from time to time to meet the necessities of the case, and not be quoting prices in the dark. Wherever the

growers have warehouses and facilities for handling their berries, the chief inspector or his deputies could inspect the berries at such places and shipments be made direct from such. For others a large warehouse at some central point should be provided, where the balance can be cared for, kept insured and warehouse receipts given for the same, making the grower as little expense as possible.

If berries are shipped to Chicago or Milwaukee and re-shipped from there, the expense of placing them to the retail merchant all comes out of the grower. You are now paying Thacker Brothers and Stanley Sons enough in commission to bear all of this expense and we have nothing to show for it. Let us keep this commission at home. If Thacker or Stanley or any other wholesale dealer wishes to buy berries of us in car lots, to ship into territory not covered by our agents, and will accept of our inspection and price and pay for them, we can afford to give all such a discount; but let us treat them the same as other dealers and give all an equal chance.

G. H. Kruschke also read a paper on the same subject, as follows:

Nothing is of such vast importance to the grower of cranberries as the market; that is, the realization of a fair compensation for the labor and capital involved. The desire to reap a profit is nourished by all; but how to achieve these ends is the great difficulty we have contended with these many years. Introducing the fruit to localities where it has been but little known, to advertise the peculiar hygienic and palatable qualities are no doubt worthy factors which should not be borne by individuals; but as it benefits all, the expense involved should cheerfully be borne by all. The first and most important duty of this Association is to take steps that we may never again be compelled to grow and sell our produce at a sacrifice. We all know too well how to raise an abundant crop, but as it seems we have yet to learn how to obtain a well deserved profit. Divers plans have been suggested, but none have brought the desired effect, as they have not had a fair test. If advertising is the true medium, I ought to realize a tremendous profit next year as I have sunk about \$200 in that direction the past season, and those who have not contributed can watch the result and, if of any consequence, will likewise reap the full fledged greenbacks without having sown the seeds.

What is the reason that berries now are so low though apples were so few and though we have always been told that the apple crop effects the cranberry market? The financial crisis must be looked upon as the mischief maker. There was no money in the hands of the buyers and their credit was below par at the banks and they could not get money enough to buy a carload of berries. It is not the large crop harvest that depreciated the value, for in 1890 the crop consisted of 800,000 bushels, and I received \$7.50 per barrel for all my berries. The last year's crop is perhaps only one-eighth larger and the prospects are that they will fetch me just about one-half as much as the crop of 1890.

There is no reason why a 900,000 bushels crop should be sold for only half as much as an 800,000 bushels crop is sold for.

I will here append the crops of the different years and prices I received since 1883:

| YEAR. | NO. BUSHELS. | AM'T RECEIVED. |
|-----------|--------------|----------------|
| 1883..... | 395,000..... | \$ 7 57 |
| 1884..... | 280,000..... | 10 00 |
| 1885..... | 743,000..... | 4 32 |
| 1886..... | 540,000..... | 6 00 |
| 1887..... | 612,000..... | 5 66 |
| 1888..... | 723,000..... | 6 40 |
| 1889..... | 620,000..... | 7 00 |
| 1890..... | 800,000..... | 7 50 |
| 1891..... | 760,000..... | 4 45 |
| 1892..... | 594,000..... | 6 72 |
| 1893..... | 900,000..... | 3 85 |

The price for 1893 being the lowest I have ever received since I have been in the business.

The East, it seems, is crowding us out, and it might be profitable to crowd them back again, but it can never be done with little, green, sour berries, picked in August and in the first days of September. To do that we must have a berry that has matured before it is picked. We must have water to save the crop from those early frosts that keep scaring so many out of their wits, and who will harvest the green fruit at all hazards and at any price, injuring their reputation and ruining themselves financially, besides destroying the market. Such berries will be called "Wisconsin berries," and some dealers will not listen to you if you mention that you have Wisconsin berries to sell. It is a deplorable fact that so many excuses can be brought forth for bringing such unwholesome fruit in the market. They haven't the water, they haven't a place to keep them, or they have some other business to attend to and must hurry to get rid of them.

If a law could be enforced preventing the sale of such undesirable fruit, those parties would either have to obtain all that is essential to raising cranberries at a profit, or would have to sell and get out of the business, and the sooner they go, the sooner will those who have and strive to have the requisite necessities, realize something out of the business.

I have for years agitated the scheme of obtaining more truthful figures in crop reports, but it has all been in vain. I was informed that the members would neglect to report. It would be well if those drones would stay at home for they only cripple the object we should all have at heart; and if that is true we had better dissolve and all go home letting each one take care of himself and "paddle his own canoe."

I understand that this Association was organized for the purpose of benefiting all who are members, and that all must contribute to achieve this object, and I cannot see why the drones can not be compelled to bear the burden and bestir themselves for their own and for this Association's benefit. "*San l'argent rien ne va,*" says the Frenchman,

which means that nothing can be accomplished without money; and though we may have in the attempt (and being pioneers) not yet struck the proper medium, we must still try again and keep at it. We must stir about, for a dead dog catches no rabbits.

As a channel through which to let out some of the last year's great crop, the East concocted the plan of introducing the fruit into Europe, to which subscriptions have been asked. The enterprise has been denounced by many, and everybody knew of something better, but no one has yet started to carry out his better plans. As I have chipped in forty barrels, a statement has been sent me, from which permit me to cite a few interesting items, which will elucidate the work and its progress.

Mr. Kruschke then read some items from the report of the Foreign Fruit Trade Co., showing what had been accomplished so far.

The President read a letter from A. J. Rider, who was in England in the interest of the foreign trade, in which he told what success he had had, and urging the western grower to more united action in the matter of working up foreign trade. Also a letter from M. A. Thayer, president of the State Horticultural Society, in regard to union in the matter of selling, and a letter from L. G. Kellogg, secretary of the Ripon Fruit Growers' Association, together with the constitution and by-laws of that association, and the Grape Growers' Union, of Brocton, New York.

The subject was discussed at length by Messrs. Arpin, Nash, Stansbury, Braddock, Bennett, Spafford, Jones, Hoxie, Gaynor, Potter and others.

Meeting adjourned until 1:30 p. m.

WEDNESDAY AFTERNOON SESSION.

President Braddock—GENTLEMEN: I think we should have the report of the committees before resuming the very interesting subject of marketing.

The committee on auditing the accounts of the Treasurer then reported as follows:

MR. PRESIDENT AND GENTLEMEN: We, your Auditing Committee, beg leave to submit the following report:

We have checked up the Treasurer's report with his accounts and vouchers and find them correct as reported by him, but since making his report, he has paid to A. C. Bennett \$21.50 from the Cooked Fruit Fund, and added the balance of that fund to the general fund as per instructions.

He has also paid to each of the experiment station conductors the sum of \$50.00, and taken receipts therefor, making the balance on hand as below:

| | |
|---------------------------|----------------|
| General Fund..... | \$ 1 09 |
| State Appropriation..... | 60 50 |
| Total on hand..... | \$61 59 |

Signed, W. T. JONES,
C. J. KRUGER,
J. A. GAYNOR.

The report was accepted and ordered filed.

The committee on program reported that the following gentlemen were assigned the subjects set opposite their names, as below:

H. B. Tuttle—Planting and care of vines after planting.

E. P. Arpin—How to improve the implements used by growers.

G. H. Bacon—Gathering, cleaning and marketing.

Andrew Searls—Rolling vines.

Willis L. Moore—Frosts.

H. O. Kruschke—Insects injurious to cranberries.

A. E. Bennett—Water supply and use of water.

After some discussion in regard to uniform packages throughout the country, the Secretary was instructed to correspond with the societies in the East, with a view of inducing them to reduce their barrels to the size of the Wisconsin standard.

Mr. Andrew Searls then presented the following paper on water supply, past and future:

MR. PRESIDENT: In discussing our water supply I will briefly go over the natural conditions governing the same in the early stages of the cultivation of the cranberry. The swamps and forests lying above our marshes were in good condition to act as reservoirs. The snows of winter were prevented from melting until late in spring by the forest shade, and when melted was held back by natural obstructions; every old log lying across the water ways served as a dam to hold our water supply back, and rains of summer were held back by the same means and came to our marshes in a steady unbroken flow.

Later the settler came seeking a home, and seeing in our natural reservoirs good farming land, cut away the timber, plowed the ground, smoothed out and leveled our natural dams, cleared up the swamps for meadows, cut ditches to get rid of all water as speedily as possible, and at last, the man who was cultivating cranberries was forced to protect himself from the sudden floods of water flowing onto the marshes by the developing of the farms. Then the cranberry grower found it necessary to build artificial

reservoirs to take the place of the natural ones already destroyed, and to greatly enlarge his waterways to enable him to pass the increased flow of water after each heavy fall of rain.

In regard to our future water supply, in addition to the ones just spoken of, we have our streams—the ones flowing in their open beds, and the other a few feet beneath the surface. The former we have not drawn upon in our section of the country, but which might be used with great benefit to the grower of cranberries. With our reservoirs already built, it would be only necessary to tap the streams, and when a shower passed, even if it was several miles away at the head waters of the stream, it would be run into the reservoirs and stored up there, and be available for the protection and growth of the crop.

As to the second source of supply, that flowing beneath the surface has been drawn on in a few cases to my knowledge by cutting a ditch up this stream and on a level with the bog which is to be supplied. This method necessitates owning considerable land to enable one to draw from any great depth. Another way, and one that I think is likely to be brought into use extensively in the near future, is by the use of the pump. The rice grower floods his fields with a pump, and why not the cranberry grower? The water that lies in the sand below could be raised by means of pumps at a small expense and in sufficient quantity to fill the ditches. The filled ditches would moisten and temper the dry winds of August by its evaporation, and protect the young berries from becoming parched and blasted by the dry winds, even though not sufficient to protect them from a severe frost.

Discussed by Messrs. Kruger, Searls and others.

The subject of marketing was again taken up and a lengthy discussion indulged in, which resulted in the President appointing a committee consisting of J. A. Gaynor, A. C. Bennett, S. A. Spafford, G. H. Bacon and E. P. Arpin, with J. H. Treat to act as secretary, to formulate a suitable plan for handling the crop of Wisconsin.

Dr. G. F. Witter introduced the subject of graders, showing the cut of a pea grader seen by him at the World's Fair, which he thought would also work well on cranberries.

The subject was talked about by Bennett, Treat and Braddock.

A vote of thanks having been tendered to the city officials of Grand Rapids for courtesies extended; to the various railway companies for kindness in carrying the frost warning signals and furnishing statistics of shipments; and to Mr. Willis L. Moore, of the State Weather Service, for the great zeal shown in sending special frost warnings and issuing the weekly bulletin, the meeting adjourned.

J. H. TREAT,
Secretary.

STATISTICAL REPORT

OF SHIPMENTS BY STATIONS ON THE CHICAGO, MILWAUKEE & ST. PAUL AND GREEN BAY, WINONA & ST. PAUL RAILWAYS.

| | BBLs. | BOXES. |
|----------------------|-------|--------|
| Babcock..... | 555 | 21 |
| Bearss Marsh..... | 3029 | 58 |
| Port Edwards..... | 222 | |
| Centralia..... | 442 | 13 |
| Dexterville..... | 101 | 2 |
| Pittsville..... | 1 | 2 |
| Necedah..... | 233 | 16 |
| Valley Junction..... | 2623 | 13 |
| Norway Ridge..... | 175 | 14 |
| Mathers..... | 4168 | 40 |
| Goodyear Line..... | 3948 | 32 |
| Millsonia..... | 1131 | 10 |
| Bearer..... | 956 | |
| Meadow Valley..... | 972 | 99 |
| Daly..... | 721 | 3 |
| Grand Rapids..... | 1533 | |
| Dexterville..... | 859 | |
| City Point..... | 2554 | |
| Spaulding..... | 47 | |
| Pray..... | 9 | |
| Merrillan..... | 7 | |
| Total..... | 24286 | 323 |

These figures do not contain the shipments from Berlin, the Omaha road or Northern Wisconsin, and perhaps the reader is as competent to guess at the shipments from those points as your statistician.

REPORT OF COMMITTEE ON MARKETING.

The committee met directly after the adjournment of the annual meeting and spent some time in getting each others' ideas as to what was best to do. It was finally decided to leave the matter of drafting a constitution and by-laws and outlining the plan of proceeding, as well as making a statement of the plan upon which it was desired that the growers join the union, to a committee composed of J. A. Gaynor, S. A. Spafford and E. P. Arpin. After this committee agree upon the above matters, a dozen copies of the plan is to be struck off and mailed to the other members of the committee, as well as to prominent growers, with the request that they return them to the committee with any criticisms and suggestions that the growers may think will be of benefit to the committee. The committee hope that by getting these criticisms and suggestions to formulate a plan whereby all who wish may be benefited.

J. H. TREAT,

Secretary of Committee.

CONSTITUTION AND BY-LAWS

OF THE WISCONSIN STATE CRANBERRY GROWERS' ASSOCIATION, AS AMENDED AT THE SEVENTH ANNUAL MEETING, JANUARY 9 AND 10, 1894.

ARTICLE 1. This Association shall be known as the Wisconsin State Cranberry Growers' Association.

ARTICLE 2. The objects of the Association shall be to advance the interests of all engaged in the cultivation of cranberries in this State by obtaining statistics and information of the condition of the crop in this and other states, from time to time; by establishing and taking measures to insure the use of uniform packages for marketing the fruit, so as to secure the confidence of dealers and purchasers by this evidence of fair and honorable dealing; to enlarge the area of the market for this fruit through definite and direct action; and generally, by all legitimate and honorable means to advance the interests of the cranberry cultivator.

ARTICLE 3. The officers of the Association shall be a President and Vice President; a Secretary; a Treasurer, who shall give a bond to the amount of \$500.00, with sureties to be approved by the President; a Statistician and a Corresponding Secretary for each of the several cranberry growing sections represented in this convention, and an Executive Committee, composed of the President, Vice President, Secretary, Treasurer and one other, chosen annually by the members. The duties of the President, Vice President and Secretary shall be such as are usually implied in like offices in similar associations. The duties of the Corresponding Secretary shall be to gather the statistics of cranberry culture in his particular section, including the name and post office address of owner, amount of ground improved and in bearing condition, and the age of such improvements, and to report the probable crop in sight, on or before each annual convention in August, and to report at the annual meeting in January the actual amount of shipments, prices obtained, as far as possible, and to make a weekly report to the Secretary, after the August meeting, until September 30th.

ARTICLE 4. The duties of the Statistician shall be to correspond with, and to receive and collect the information derived from the Corresponding Secretaries and other sources in and out of the State, for the use of the Association, and to report the same at the August and January meetings of each year.

ARTICLE 5. There shall be an annual meeting on the second Tuesday of January of each year, for the election of officers and the transaction of general business.

ARTICLE 6. There shall be held on the first Tuesday after the 12th of August, annually, a convention to receive reports from the Statistician, and to adopt a scale of prices for gathering the crop, so far as may seem practicable.

ARTICLE 7. The annual meetings, conventions and special meetings shall be held at such place as may be decided upon by the Executive Committee.

ARTICLE 8. Any person signing the Constitution and paying one dollar, may be admitted as a member, and the annual dues shall be one dollar.

ARTICLE 9. This Constitution may be amended at any annual meeting or convention, by a vote of two-thirds of the members present.

BY-LAWS.

1. The President shall preside at all meetings, and in his absence, the Vice President.

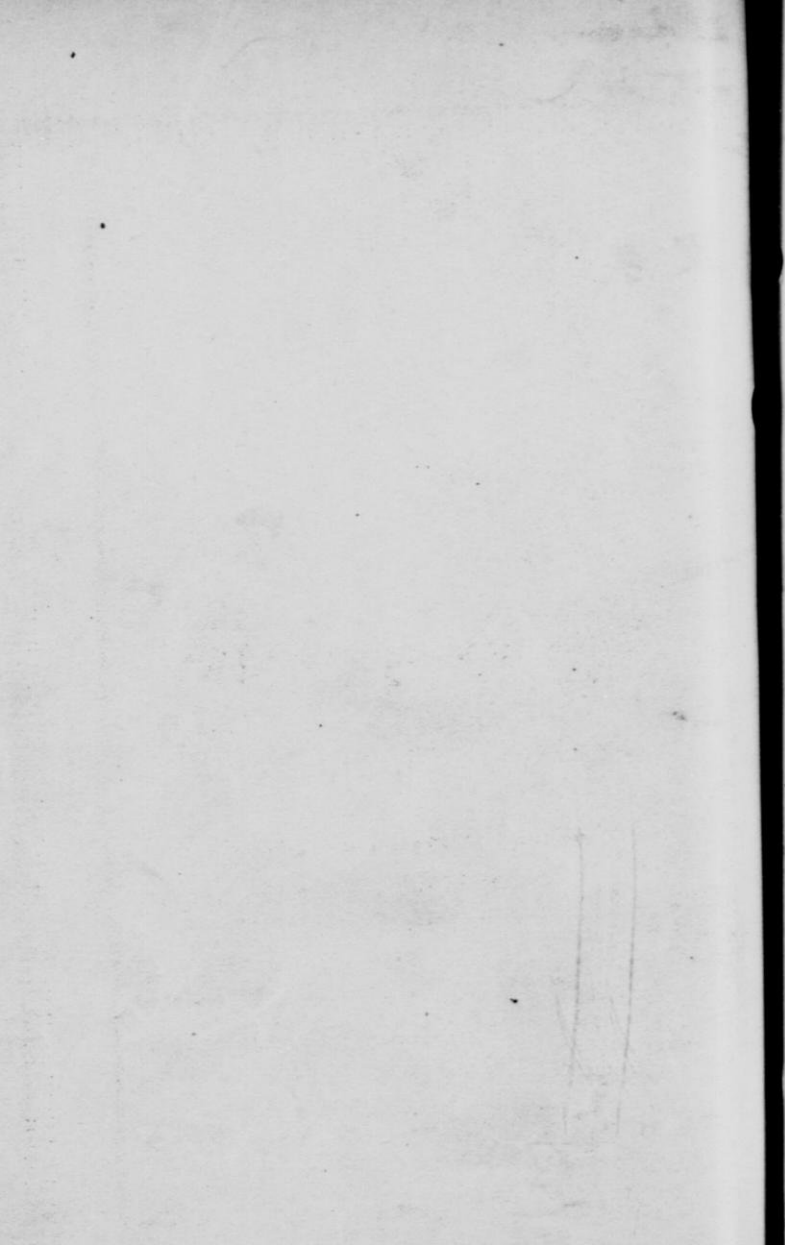
2. It shall be the duty of each member to furnish to the Statistician or Corresponding Secretaries, annually, information as to his own and neighboring plantations; the prospective crops, the actual amount when crop is secured, and such other information as may be of interest.

3. Any company of growers may be represented by one or more of its officers.

ORDER OF BUSINESS.

1. Reading of minutes.
2. President's address.
3. Report of Statistician.
4. Report of standing committees.
5. Report of special committees.
6. Report of Treasurer.
7. Election of officers.
8. The best methods of planting and the care of vines after planting.
9. Water supply and the use of water.
10. Construction of ditches, dams and bulkheads.
11. Implements used by growers.

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12. Gathering, cleaning and marketing.
 13. Insects injurious to cranberry growing.
 14. Plants that interfere with the spread of vines.
 15. Frosts.
 16. Fires.
 17. Report of the keepers of experimental stations.
 18. Production of varieties and the merits of each.
 19. Conditions favorable to the formation of fruit buds.
 20. Miscellaneous business.



Please return this if can as
it is all the one I have

A. C. Bennett

Grand Rapids


Michigan

R 4 D - 3

MR. PRESIDENT; LADIES AND GENTLEMEN:—

About forty-two years ago I took my first lesson in the putting up of apples so that they would keep far beyond the ordinary method. I carefully picked the apples and placed them on the top of about ten inches of dry oat straw on the double barn floor where they were left to dry for several weeks in the shade, and where no rain could touch them. When I came to barrel them I noticed that some of the apples had wrinkles on their skins. I put some of these apples into my cellar and sold the balance at \$6.25 per barrel to my brother-in-law who was retailing apples in the east. The apples saved for my own use were kept in an ordinary cellar, and showed keeping qualities far beyond anything I ever saw before, and my brother-in-law reported in the month of May, that he never handled such good keeping apples in all his life, that he had some barrels left that were perfectly sound and were never put in cold storage.

In 1893 at the World's fair in Chicago, I noticed the large columns of lemons that were such an ornament to the Horticultural building, and I noticed that they did not rot. I asked the Californian in charge of them how it is that their lemons do not rot? Do you coat them over with white wax, or anything to preserve them? He replied with a smile and said, "No, they are the natural lemon just as they grew," but he said, "Those of us who understand or business put them in shallow trays like these and just dry them a little, then they will keep, but they don't all do it, they haven't all got onto it yet. Before we did this we use to ship them in iced cars to Chicago and then they had to be sold right off and we often suffered heavy losses on them. Now we save our icing bills, which is quite an item, and the goods don't have to be sold till the market price suits us".



When I went to California seven years ago I found at Riverside a man by the name of Graceland who had printed a little book, and he made me a present of it. He is one of the directors in the Southern California Fruit exchange. This book explained his method of curing lemons so they would keep a year, and gave as his reason for printing the secret that he had found while he could sell all his cured lemons for more than his neighbors, yet his own product was too small to advance the general price, and that by giving to all a chance to share in his discovery they would all get even better prices than he had been getting. He said before the lemons of California were cured that Sicily lemons were being sold in San Francisco at much higher prices than the California lemons, because they kept better. In Sicily I learn that the lemon is never picked from the tree until it is cured on the tree by leaving it several days when there has been no rain.

Mr. Graceland's method of curing and keeping lemons was to build a square house, with lime plastered walls, inside and out, with a single door for entrance. Out side of this is another building entirely surrounding it, four foot wide with projecting roof for shade, and thoroughly ventilated. In this space the lemons are first placed in shallow trays and thoroughly cured, then removed to the inner building where they will keep a year. I have a cluster of four oranges on a single stem clipped from the tree in California seven years ago, and they are sound today, they were simply hung up and dried whole.

We boil down syrup till it is thick enough to keep. The honey bee does not seal over the fresh honey until it has dried out. Dr. Clark, of Los Angeles, who has a peach orchard, told me that when they irrigate the peach orchard, that for several days after the water has been put on, the peach absorbs so much water that it is insipid until the ground is dry again. The thickening of the juices of the fruit by evaporating of the water not only dries up the stem and retards the entrance of air into the fruit, but it retards the circulation of the juice within the pulp of the fruit, which continues to go on circulating to perfect the seeds within, and the slower this circulation the longer the life principal is maintained. Cold, dry air also retards this circulation, but if made too cold the circulation stops and the fruit is dead, and when warmed up soon goes to decay. Tomatoes

may be picked too green so that their seeds will not germinate if removed. But lay the tomato up in the sun and they will soon color up on the outside and mature the seeds inside.

Pick the fruit for shipment before it is fully ripe, dry the surplus matter out of it, concentrate the juices to help exclude air, and retard their movement within the fruit, for when the seeds are matured in most fruits the pulp has served its purpose and is ready to go to decay. Keep the fruit alive as long as possible and thereby retain its flavor.

In the fall of 1901, I sent my daughter a crate of well cured Jumbo cranberries. In the fall of 1902 she sent a small box of them to me in Florida to show me how well they had kept over a year. I had put them in my writing desk in a warm room where they remained until the spring of 1903 when I sent a few of them to J. A. Gaynor, of Grand Rapids, Wis., to be planted on the experiment station, and the balance were sent to Cameron, Wis., to be planted on my mash there and they came up nicely.

MR. PRESIDENT, LADIES AND GENTLEMEN:—

Some forty years ago there lived near Berlin, Wis., two brothers by the name of Carey and their father who owned several forties of marsh land on which some wild cranberry vines were growing. Early in the seventies, in an unusually favorable season, these forties produced an immense crop of cranberries and they brought good prices—\$25.00 a barrel for some of them. The news spread like prairie fire and as there was about 400,000 acres of swamp land in the state of Wisconsin—mostly state land—at that time, there was a rush for it equal to the mad rush into Oklahoma—only that they could enter the land at any time and the entry of 100,000 acres of swamp land created no commotion. Parties from the cranberry district of the far east were found wading over the marshes in Wisconsin everywhere and from New Jersey and New York, Chicago and the rural population everywhere, pitched in to get a share.

I came here in 1869 and soon caught the cranberry fever and I bought the forty acres where our buildings now stand, and expected to get rich enough in four or five years to retire and live on the interest of my money. But alas I am at it yet, and like the cotton planters in slavery times, borrowed money to pick our crops with. I took my son in as partner when he was under seventeen. Neighbors came in fast and we soon found that we had to buy (as the saying is) all the land that joined us to keep them from cutting off our water supply and to protect ourselves from fires. Not one in sixteen of the cranberry growers of Wisconsin have made a success of the business.

In the commercial reports for the early seventies we find twenty-two parties at Berlin, Wis., reported as cranberry growers and worth from \$5,000 to \$250,000 each. Today there is not one. The main marshes are owned by Mrs. Mary P. Stanley, of Chicago. There are other parties there that grow cranberries, but they have other

business that so far overshadow their interest in cranberries that they are not rated as cranberry growers. In nearly every county in the state of Wisconsin we find abandoned cranberry marshes of large extent. In Winnebago county, in one township alone, there are over 1,000 acres that were once entered for cranberries, and most of it ditched and dammed; and about 100 acres planted. In 1894 and 1895 I sold about 900 acres of these marshes at \$5 an acre after the parties had held it twenty-one to twenty-five years, with all the improvements thereon. The owners were living in New York city, some in Illinois and Beloit, Wis.

Not far from St. Croix Falls, some monied men invested in over 2,000 acres, years ago. I do not think they have ever planted a vine. Colonel Vilas, whom you all know, as a smart business man, in the early 90's invested some thirty-five or forty thousand dollars in Wood county, and abandoned it after planting eighty acres or more. The muck lay on top of quick sand, and when the drought came all his vines dried up and died. One of my near neighbors lost twenty-two acres of new planting at the same time though he said he thought he planted them "just as Bennett did who did not lose his." Parties interested in the woolen mills at Beaver Dam, told me that their company had put in over \$20,000 in cranberry marshes and were going to abandon them. Hundreds of acres of marsh near Grand Rapids, Wis., used to produce cranberries where not a vine can be found now. I have traveled through the state of Wisconsin from 1869 to 1892—twenty-three years as a commercial traveler, constantly on the move—and I know twenty times as much marsh land went back to the state during that time, or was sold for other purposes, as is now producing cranberries in Wisconsin. The Cape Cod growers and the New Jersey growers all had the same experience in an early day.

Lack of facts to guide them in proper selections and experience in growing was then and is now the main cause of trouble. In 1893 at our annual convention there were eighty-four present, now we get about thirty to thirty five of growers present. Fourteen years ago, a grower who had been then ten years in the business said, "when I bought my marsh the owner showed me the marsh and the vines and assured me that all that was necessary to grow a crop of cranberries was to secure the right conditions and the crop was sure every year" and he said, he had been rais-

ing conditions ever since. One party near our state experiment station made a fine garden, raised cabbage and potatoes, then planted it to imported cranberry vines and announced that not a weed should grow on it. The next thing that I saw was an immense crop of cat tails. The owner said he would plow it up and re-plant it. I told him to simply dry it down till it was dry enough to grow cranberries and that every cat tail would disappear. This he did and they went, but the next thing I saw there was an immense crop of bunch grass five feet high with seed enough on it to seed a whole township. The worst crop any cranberry man ever saw.

On the experiment station itself we find a large amount of tree moss, the result of sanding it from the near by low lands. To pull it out disturbs the cranberry roots so that they do not do well. To leave it in means to abandon the whole thing. The result is that the selected varieties on the experiment station considering the high quality of the vines, have produced the poorest lot of berries to be found anywhere. If the one who planned the station had known what they know now, they would sooner have hauled sand forty miles than to have used such as they did. The berries are not near as fine as the ones raised on the old experiment station from which they were planted.

The action of water on muck may seem strange. If you undertake to cover it with water to drown out the grass and weeds, in one or two summers the surface separates and comes to the top by the same force that causes water to boil and jump up in the kettle. Little over one year ago one hundred acres of marsh near the Wolf River rose up and floated down stream. Under much of the large marshes there were ancient streams which are yet well defined. I once built a dam on the lower side of the reservoir placing the dam below the ditch. In mid summer all at once I noticed the water was all gone out of the reservoir. On investigation I found a big opening in the bottom of the ditch ten rods long big enough to drown ten elephants. The water had gone down, and under the entire forty acres in another case where the dam was put on, one side and the ditch on the other side, the pressure of the water against the dam and its motion forced the dam into the ditch entirely closing it. I have seen piling eight feet long driven down in the muck to check or dam these under streams, and have seen them

thrown out by frost until they fell over on the surface. I have seen muck dams ten feet wide, bent out of line by frost.

I have seen acres of young vines pulled out by their roots and left to dry on the surface or float off with the spring ice. The water getting under the ice and raising it up, vines and all. Sluices, unless properly put in, are thrown up by frost, and big holes are found under them.

Muck when it freezes becomes like frost on a board set on end and almost as easily crushed, making a poor foundation for plants to stand in, in an open winter.

The fires of 1893 and 1894 driven by cyclonic winds burned over one of the finest cranberry sections of Wisconsin, ten miles wide, by twenty miles long. The cranberry vine seems to burn with an intense heat and like a celluloid collar. I have watched its approach upon young scattering vines and only a year old, believing that the green growing vines would not burn, but after once afire they burned as though they had been soaked in kerosene.

Clear muck when dry enough burns like punk, and is very difficult to extinguish. I have entirely submerged pieces of it into water, until I thought surely it was all out, but on taking it out and breaking it open there was still a marsh of fire on the inside. The cranberry vines run but little below the surface and a fire on the marsh in a dry time means their entire destruction.

As soon as you clear the surface of the muck so as to let in the sunlight, hundreds of grasses and weeds spring up that were never seen here before by the oldest inhabitants. First in evidence is the wild sunflower that often springs up on top of the newly made dams, so that nothing else grows under it, and so high that in mowing it off you can barely look over it. So formidable are the weeds in the marshes of Wisconsin that all attempts to keep them clean like the Cape Cod marshes, have long since been abandoned.

Up to the present year the method of selling cranberries was expensive and ruinous. The commission man bled the moss back growers without mercy. I know of one grower that lost his entire crop when berries were high, and his crop was worth about \$15,000. He sent them all to Chicago and never received one cent. There may be honest commission men, but in our line they could

buy of the dishonest ones for less than we could afford to sell.

Insects! The long continued growing of any one crop of any kind without rotation furnishes a constant supply of food for such insects and animals as feed upon it, and they increase until they often destroy entirely the plant on which they feed. Thousands of cranberry marshes have passed out of existence in this way, being eaten up by the vine worm and letting the sun in in a dry season, dried up the roots, and there very existence is forgotten by the present generation.

The vine worm is nearly all over the state. It moves like the chinch bug or army worm stripping the leaves from the vines and the young berries from their stems. One neighbor this year rolled down six acres of the marsh berries and all twice over in the water. Another who joined us flooded five acres until the berries dropped off then let them alone, and let the worms propagate two crops a season so that their neighbors could have some.

The cranberry fruit worm is still worse. It feeds entirely upon the berry from the time it starts till the largest berry is riddled with these holes. Sometimes destroying one half or more of the crop. The tip worm like the hessian fly worm, is very small and has no legs, yet the weavel or worm of the hessian fly laid waste all the wheat fields of western New York, and the tip worm of the cranberry looks like him, and his mother is a fly just the same, and both destroy the seed before the maturity. The extent of their injury is less apparent but no less important to be checked now, before it devours all our crops.

The appearance of what is known by the name of false blossoms, is new to most of us, and needs more scientific investigation than any of us growers possess.

As keeper of the U. S. Weather bureau station at Cameron, Wis., I might say that through that source in the last few years we are realizing the importance of knowing the different conditions between marsh lands and up land, also the value of local rain fall and many other conditions which are appreciated by us.

Now like a drowning man we have shown you our precarious environment. I know that neither the state of Wisconsin nor the United States have any one man trained in the cranberry business, that knows any more about the general cranberry business than we growers do. We know that you have expert plant doctors, bug de-

tectives, weather guessers, learned scholars in botany, philosophy, agriculture, horticulture, and every other industry except cranberry culture. Yet the United States the past year raised over one million bushels of cranberries. I saw it stated in the Tribune that A. D. Make Peace & Co., planted 900 acres in 1905, and would plant 1100 more acres in 1906 in New Jersey. The state of Wisconsin encloses 400,000 acres of swamp land. Will the state of Wisconsin or the United States see us drown in our infancy, or will they establish and maintain a life saving station where such as are now in the business can receive post graduate instructions. I know you have no teachers, but you have grown them for other industries and as unborn generations will be calling for them in this line why not begin now, until that time comes and the new investor in cranberry lands should not isolate himself from cranberry growers but let the interest gradually extend itself from the centers where it now exists. If you do you are sure to add one more to the unfortunate growers of conditions instead of cranberries. One large firm raising over a thousand barrels a year after eighteen years in the business, finds that during that time they have declared just two dividends; one of 8 per cent and one of 3. An acre of gooseberries near Ripon, Wis., produced \$1,400 worth of berries a few years ago, and all were sold in St. Paul and Minneapolis. How many of the isolated cranberry men ever heard of it. We need to concentrate our growers on less territory and work like we do in the town of Cranmoor for the general good of all. Let us help along our Experiment Station which in time will help us. The exhibition this season of the parent and the seedlings is worth all all the cost of the station and yet we know only one of the parents.

