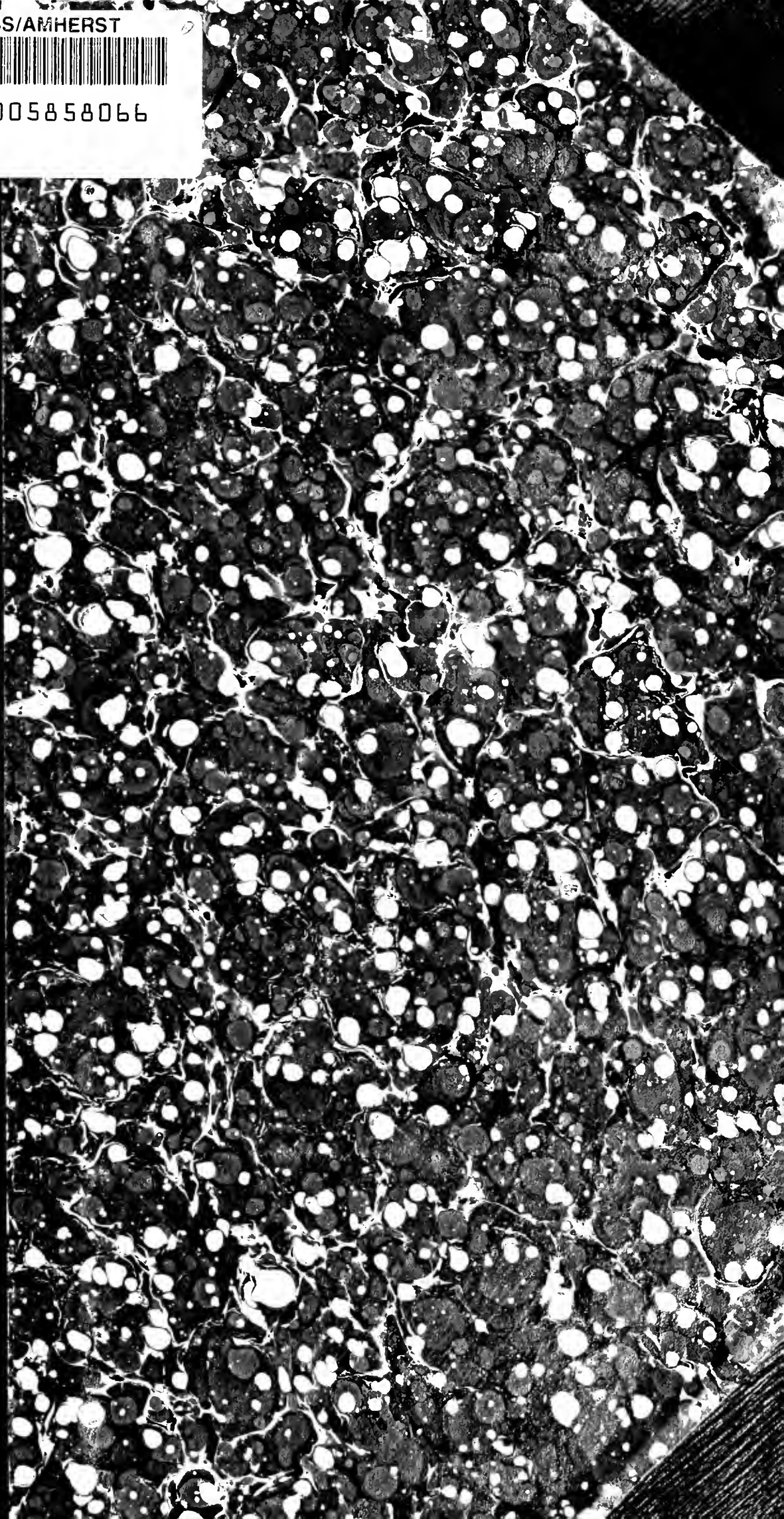


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James Dean

PROCEEDINGS

OF THE

SEVENTH ANNUAL CONVENTION

OF THE

SOCIETY OF AMERICAN FLORISTS,

HELD AT

TORONTO, ONT., CANADA,

AUGUST 18, 19, 20, and 21, 1891

Published by Order of the Society.

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OFFICERS

OF THE

SOCIETY OF AMERICAN FLORISTS.

For 1891.

President: M. H. NORTON, BOSTON, MASS.	Vice-President: JOHN CHAMBERS, TORONTO, ONT.
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Secretary:
WILLIAM J. STEWART, BOSTON, MASS.

Treasurer:
MYRON A. HUNT, TERRE HAUTE, IND.

Executive Committee:

<i>For One Year.</i> FRANK HUNTSMAN, Cincinnati, O. WM. R. SMITH, Washington, D. C. J. T. TEMPLE, Davenport, Iowa.	<i>For Two Years.</i> WM. FALCONER, Glen Cove, N. Y. JOHN BURTON, Chestnut Hill, Philadelphia, Pa. D. B. LONG, Buffalo, N. Y.
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For Three Years.
JAMES DEAN, Bay Ridge, N. Y.
P. WELCH, Boston, Mass.
H. W. BUCKBEE, Rockford, Ill.

For 1892.

President: JAMES DEAN, BAY RIDGE, N. Y.	Vice-President: WM. R. SMITH, WASHINGTON, D. C.
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For Three Years.

Three members to be appointed by the President-elect on Jan. 1, 1892.

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PROCEEDINGS.

HORTICULTURAL PAVILION,
TORONTO, ONT., Tuesday, August 18.

In the gayly decorated pavilion, festooned with evergreen, the Stars and Stripes and the Union Jack were conspicuous in all directions. Ferns, palms, and handsome foliage plants ornamented the platform, from above the centre of which appeared on a white banner the words, "Welcome to Toronto." The outer circle of the hall, reserved for the customary trade exhibit, and separated from the interior by canvas partitions, contained a display of inventions and appliances for carrying on the work of the gardener and the florist. In the adjoining conservatory building a fine collection of flowers and plants embraced many rare specimens of interest to horticulturists.

FORMAL GREETINGS AND THE RESPONSE.

At the appointed hour for the preliminary proceedings, a number of officials of the city of Toronto, members of the Reception Committee appointed by the City Councils, and members of the Reception Committee of the Gardeners' and Florists' Club of Toronto, with the officers of the Society of American Florists, appeared on the platform; and, after an interval of waiting, in expectation of the arrival of the Boston and New York delegations, which had been delayed *en route*, the Convention was called to order. Mr. JOHN CHAMBERS, of Toronto, Vice-President of the Society of American Florists, and President of the Gardeners' and Florists' Club of Toronto, presided.

Chairman CHAMBERS, in formally welcoming the visitors in behalf of the local organization, assured them of the pleasure which their presence had given their Canadian brethren, and expressed the hope that all of them would have a pleasant time during their visit. He then opened the proceedings by introducing Mayor CLARKE, of Toronto.

Hon. EDWARD F. CLARKE, Mayor of the city of Toronto, came forward and said:—

Mr. President, Ladies and Gentlemen: I have been asked to appear here, representing my fellow-citizens, to extend to you a most hearty welcome to our Queen City. This is the first time, I believe,

that any Canadian city has been honored by its selection as the place for the annual meeting of your Society, and we feel that a great compliment has been paid to the Province of Ontario, and especially to the city of Toronto, in the holding of your seventh annual meeting in our city. I assure you that we are delighted to have you among us. This is, probably, the first visit to Canada for some of the ladies and gentlemen now here, and I hope they will carry away with them pleasant reminiscences of the Dominion and its inhabitants.

I regret to confess my inability to convey to you any specific information about the profession in which you are engaged, or about the progress of horticulture in Canada, but I am buttressed on the platform by the gentleman (Mr. Alderman Score) who is the chairman of the Gardens and Parks Committee, and who takes a deep interest in horticulture, and by a member of our committee, whose name may be familiar to some of you, I refer to Mr. Alderman Hallam, whom we look upon as the greatest living horticulturist. I remember that, two years ago, in London, Eng., I met my friend Hallam, and he took me on a trip to the Kew Gardens; and I do not think, ladies and gentlemen, that I exaggerate when I say that he named to me some twelve or fifteen thousand different plants and trees that were growing there. [Merri-ment and applause.] We have also with us another member of our Council, Mr. Alderman Leslie, whose father is, I think, the pioneer nurseryman of the Province of Ontario. We esteem and honor these gentlemen, our fellow-citizens appreciate their efforts, and have elected them to occupy positions in our Council. I am sure, ladies and gentlemen, it would be more profitable to you to listen to these gentlemen, who know something about your business, than it would be to listen to me. I will not take up your time, as the members of our committee feel desirous of saying a few words to you, but I should feel disappointed if in any way wanting on my own part in assuring you that you are right royally welcome to Toronto. I join with the Chairman in expressing the hope that your visit may be an agreeable and a profitable one, and that the objects of your Society may be promoted by it. Again I welcome you to Toronto, and trust that your stay will be pleasant and profitable to you all.

Mr. Alderman R. K. SCORE, chairman of the Gardens and Parks Committee of the City Council, was then introduced. He said that the allusion to himself which the Mayor had seen fit to make had rather amused him, in view of the fact that he was a novice in horticulture, though he was an ardent admirer of it. He continued:—

Three months ago, when your committee representing the American Society came here and I had the pleasure of spending an evening with

them. I promised them that, if their hundreds of members came to Toronto, we would give them a hearty welcome, and that, while they stayed with us, we would bind and blend together the Stars and Stripes and the British flag that had braved a thousand years. I point you now to what you may see in this hall as an evidence that, in one respect, my promise has been made good by the committee in charge here.

Let me improve this opportunity to say to you that when Mr. J. D. Reynolds, of Chicago, at your meeting in Boston last year, moved that your Convention meet here, he displayed, in my judgment, very good common-sense. Various reasons occur to me in support of my statement, and I will enumerate some of them. They are these: first, that it is very agreeable and pleasant to us to meet our American friends from over the line; second, that we should see more of each other than we do, and that our conventions and associations of all kinds should be made a means to this end; third, that Toronto is beautifully situated, is convenient of access, and affords a visiting place for you in which we may become better acquainted with each other.

Allow me here, Mr. President, to congratulate you on your grand National Society. The truth of the old saying that "in union there is strength" has been proven by the rapid strides you have made in the art of cultivating flowers and plants. We cannot show you here such great flower markets as you have in Boston or Chicago, for we know that your florists are unsurpassed for intelligence and taste, but we can assure you that we are growing, year by year, on the same lines that you have so successfully put before us in large cities. Do not fail to visit our parks, as I am sure you will not, and you will see what we have done in this great work of art.

I am sure that you will agree with me when I say that in Canada, as well as in America, the taste for flowers, combined with skill in their cultivation, is growing rapidly; and I hope that your societies and our own will make flowers one of the necessities of the rich and the poor alike, and that the day is not far distant when we shall see flowers and plants in all our public squares and parks, in every city throughout our Dominion.

Ladies and gentlemen, in extending to you a hearty welcome to Toronto, the Queen City of our fair Dominion, I venture to assure you, from what I see before me, that of the many associations and conventions that have visited our city, your own is certainly entitled to the distinction of being "the flower of the flock." [Applause.]

In introducing the next speaker, Chairman CHAMBERS remarked that the gentleman was not a florist or horticulturist, but an official whose duties could not well be enumerated in a few words. He added that, if

any of the ladies should happen to lose their way in the city, they would only need to inquire for Alderman Orr, when they would receive all the facilities they desired.

Mr. Alderman J. O. ORR, upon being presented, said that he could but reiterate the remarks of the Mayor in extending to the delegates a hearty welcome, and also the remarks of the Chairman to the effect that the visitors would find a guide to the city of Toronto if they would apply to the Reception Committee, who, he had no doubt, would do all they could to make the stay of the American florists as pleasant as possible. He continued:—

I do not know that we could have any visitors whom we are more pleased to entertain than our American cousins. We consider that the flag that floats over the Dominion and the flag that represents the American part of this continent should be placed side by side, as they are the two flags that carry liberty and civilization throughout the entire world. [Applause.]

I am pleased to see, by the number of them here to-day, that so many ladies take an interest in floriculture. If there is one thing more than another to which that industry is indebted for success, it is the interest in it which is manifested by the ladies. I rejoice to see so many of them here, and trust they will enjoy themselves equally with the gentlemen during their stay in this city.

Alderman ORR, in conclusion, called attention to a programme for the entertainment of the visitors, which had been prepared by the Reception Committee of the City Councils in conjunction with the Reception Committee of the Florists' Club of Toronto. He hoped the delegates would avail themselves of the entertainments that had been prepared for them, and again expressed his pleasure and that of the people of Toronto in greeting the Convention.

Mr. Alderman JOHN HALLAM was here introduced by Chairman CHAMBERS as "one of our most successful amateur horticulturists, or, if not the most successful, the most enthusiastic." [Applause.]

Alderman HALLAM responded with a humorous allusion to the introduction given him as "a grand set-off," and one which he did not know whether to appreciate or not. He continued:—

There is one statement made by his Worship the Mayor, which I want to correct. I must tell you that he has drawn upon his imagination for the "twelve or fifteen thousand plants" named by me in the Kew Gardens. I have not the slightest doubt that there are twelve or fifteen thousand varieties of plants in that grand garden, but to say that

I would know one tenth of the names of them is to claim for me an impossibility. However, my object in inducing his Worship the Mayor to go to that garden was this. He was not a very enthusiastic lover of flowers, at least when considering the cost of them from a corporation point of view, and I wanted to show to him, as well as to others, what had been done from a national standpoint, and what could be done in this grand city of ours, provided we had a liberal corporation that would appropriate a little of the taxes for the advancement of horticulture and for beautifying our public parks. That was the object I had; I thought I could convert his Worship on that line. Subsequently I was repaid a little for my trouble, but I will leave to you to guess how far his remark is correct when he says I told him the names of twelve or fifteen thousand plants." I think that the nomenclature of plants is, of all things, the most incomprehensible to me; and if I were to begin to repeat some of the names, I would need a dictionary bigger than myself. [Merriment.]

However, I have much pleasure, as a citizen and as one of the people's representatives in Councils, in welcoming you to this city of ours. We are a little ambitious here; we think there is no city on the face of the earth that can compare with Toronto; and I hope that before you leave us, we will induce you to think as we do. [Applause.] And I want you, when you go back to your wives, your sweethearts, your relations, and to the newspapers, to tell them, and through them the people of the United States, that we do not live in the backwoods, that we are not clad in bear's-cloth furs and everything of that kind, but that we have a grand country, a fine climate, and just such a climate, understand, as will give us good men and women to represent the good old Anglo-Saxon stock. Any of you who have read the history of England have observed that, in the ancient times, the Anglo-Saxon stock in its ascendancy loved flowers. It always had a sympathy with flowers. It has flower lore. I am not going to inflict a speech upon you on that line, but I could tell you anecdote upon anecdote of superstitions and proverbs connected with that subject, that might amuse you.

I welcome you here as horticulturists. I think you are entitled to rank first among national organizations. You beautify everything that comes under your hand. I have perfect sympathy with the objects you are meeting here to promote. It is right that you should have a Convention; it is right that it should be international; and I hope that this will not be the last Convention of the kind held in the city of Toronto for the objects you have in view. [Applause.]

Horticulture in the city of Toronto, in my time, has made wonderful progress. I am not going to detain you on that line, because others here, who have been practically engaged in the business, can tell you

more eloquently than I can of the marvellous progress that horticulture has made in this city. Instead of being importers of cut flowers, as we were years ago, we are now, to a very large extent, exporters; and I would just warn you, Americans, clever as you are, that you must look to your laurels, or we will be sending flowers to New York. [Applause.] We have here gentlemen of enterprise, several of them in Toronto, and you will excuse me for saying (I do not mean any offence) that I do not think they will suffer in a comparison with the most enterprising of you. This is one of the facts I want to impress on your minds, that we as a people, in this northern latitude, are capable of doing great things in this direction.

In conclusion, I assure you that we want you all to go away pleased, and that, as far as the committee of managers is concerned, we will do all that we possibly can to entertain you and make your sojourn here a happy one.

Chairman CHAMBERS remarked that, after the speech of Alderman Hallam, all his hearers would surely feel at home. He then introduced Alderman Leslie, a member of the City Councils of Toronto, who he said had been brought up in the nursery business, and who was the son of the pioneer nurseryman of Canada, a gentleman who had come to this country about the year 1830.

Mr. Alderman J. K. LESLIE responded that, if the assemblage was one of nurserymen instead of florists, he might advance some ideas that would be entertaining, but he had simply to say that he was not a practical florist, although much of floriculture was intimately connected with the nursery business. It had been his misfortune to be the ink-slinger, instead of the practical man of the firm with which he was connected, and therefore when called on to talk of floriculture he felt himself to be a little out of place. He continued: —

As a member of the City Councils and as a citizen of Toronto I can simply express my admiration of the great gathering I see here to-day. The Society of American Florists is doing a great good. None of its members know of the good they are doing as well as ourselves. Any one looking over the programme for your annual meeting, and appreciating the subjects therein set forth, cannot fail to reach the conclusion that you are wielding a great influence in your profession. [“Hear, hear!”] The standing of the florists of America to-day is immeasurably superior to what it was a few years ago. [“Hear, hear!”] The aims and objects of your Society are such that you must surely wield a great influence, as the results of your deliberation become known. The naming of flowers, the introducing of new kinds, the proper modes of preservation, the most advantageous ways of building greenhouses,

and the best facilities for heating them. — all these and kindred subjects are taken up by you and discussed in an intelligent manner: and the value of your discussions is becoming more and more apparent in the proper cultivation of plants of all kinds, both with respect to a diminution of their cost and an increase of the varieties that are cultivated.

I hope you will be pleased with our city. We have not the great parks, the magnificent drives, nor the variety of thoroughfares that you have in some of your American cities; but we are bringing ourselves up to the American standard, and, as Alderman Hallam suggested, the time is coming when we may compare favorably with yourselves. All that we want is a few more million dollars to spend, and I think that then we will have a city to be proud of. The inhabitants of Toronto are not possessed of the wealth of this world to the same extent as some American cities, but I can say this much, that, as far as it lies in their power, the citizens of Toronto spend their money just as liberally in public improvements as do the citizens of any city of the United States.

Alderman LESLIE concluded by reiterating the assurances already given by his colleagues in extending the hospitalities of the city, which, he said, was deservedly coming into prominence as a meeting place for conventions. [Applause.]

Mr. JAMES MASSIE, warden of the Central Prison of Toronto, who was introduced as an enthusiast in horticulture, and one who, as the head of a public institution, had a large family to take care of, cordially welcomed the visitors, and said that the citizens of Toronto had become quite accustomed to seeing their city taken peaceable possession of by American visitors, whom they welcomed and sent away happy. Alluding to the National Educational Convention, recently in session in Toronto, he remarked that many of its members found their way to the institution of which he had charge, but that they all found their way out again, and none of them remained with him. [Merriment.] He invited his hearers, especially the ladies, to visit and inspect the institution. He explained that he was not a florist, and that he had been unable to recollect the names of plants to which his attention was called by visitors in the greenhouses of the institution, but he did feel a pride in the efforts of the citizens of Toronto to beautify their city.

Referring to these efforts as of comparatively recent date, Mr. MASSIE said that the adornment of the public squares and institutions had been begun within a very few years: that only within the last ten years had any effort been put forth to beautify the City Park: and that for this Toronto was very largely, wholly indeed, indebted to President Chambers of the Florists' Club. He said he was mindful of the assist-

ance rendered by his esteemed friend, Alderman Hallam, in taking the Mayor of Toronto to the Kew Gardens and showing him what had been done there, as the beneficial effects of that visit had been demonstrated. To President Chambers, however, more than to any other man, was due the credit of the successful efforts to beautify the city. To that gentleman the city was also indebted for the presence of the American Florists to-day.

The speaker further said that he looked forward to excellent results from the presence of the Convention. He suggested that the visits of the florists to the ornamented grounds and other public places of the city, in which flowers and plants were displayed, would have the effect of encouraging and stimulating the citizens of Toronto to further beautify the city by similar displays. Thus, not only would their visit be pleasant and beneficial to themselves, but the visitors, by expressing their opinions upon what had been accomplished in the decoration and ornamentation of the city, would leave profitable impressions which could eventually be utilized in the further beautifying of the city.

Mr. MASSIE then extended an urgent invitation to his hearers to visit the Central Prison, adding that he would not detain them, as he presumed they all had certificates of character. [Merriment.] He trusted that they would revisit Toronto, in the future, to note the progress and results of the efforts being made in floriculture. [Applause.]

Judge C. W. HORT, of Nashua, N. H., on behalf of the Society of American Florists, made the response to the addresses of welcome. He said: —

Mr. President, Mr. Mayor, and Aldermen, Ladies, and Gentlemen: It becomes my duty and pleasure, in behalf of the Society here assembled, to accept the hospitalities so generously tendered us. It is a duty, because as such spokesman I am called upon to voice the sentiments of the "strangers within your gates," and to assure you, sirs, that the Society fully appreciates the great honor conferred upon it as a whole, and upon the members individually, in being so gracefully and cordially received in your beautiful city. I esteem it an honor that I was selected by our President to represent a Society which cannot be characterized, in the language of Burke, as "still, as it were, but in their gristle and not yet hardened into the bone of manhood," but an organization of more than eleven hundred members, residents of forty States, of the three leading provinces of British America, and of England, Ireland, and France. To occupy such a position, I long, like Byron, for a speech "of forty parson power"; but that being denied me, I will proceed as best I may.

It is the first time in the history of the Society that it has convened outside the limits of the United States. How fitting that your charming city was chosen! The name itself is a synonyme for hospitality; for in the poetic Indian tongue from which it is derived, "Toronto" signifies the "place of meeting"; and in the days long ago, the beautiful site on the lake shore was selected as the rendezvous of the great tribes when called to deliberate on matters of their common welfare. Thus at an early period its natural beauties and advantages were appreciated, and time has but added to its charms. This may offer an explanation of the liberal hospitality tendered us here to-day. From the beginning, the good people were accustomed to it.

The city itself, from its location and surroundings, offers most extraordinary facilities for such courtesies. It is easily accessible by rail or water, having six or more railways converging from different points of the compass: a fine harbor, to which steamers come from all the principal cities on the lakes and the St. Lawrence; with a people thoroughly alive to its advantages and natural surroundings; "framed," as Gloster says, "in all the prodigality of nature." Is it any wonder that a city with such a combination has made the wonderful growth attributed to it? In 1813, we are told, the population was but four hundred and fifty-six. In 1885 it was one hundred and twenty thousand, while now the returns show more than two hundred and twenty thousand inhabitants. In assessed valuation, in a period of eight years alone, it showed a gain of forty-eight per centum; the people meanwhile keeping pace in all the branches; so that to-day it is the religious, educational, political, literary, legal, and commercial centre of the most populous province of the Dominion. Well may its citizens be proud to occupy such a position in a country which has been styled "the principal gem of the girdle of precious stones encircling the waist of Britannia." Most truly may they boast of a province which by the mother country is so esteemed; to which is given the greatest latitude in self-government, and in the management of its own affairs; a country of enterprise and progress. And though we from the States consider ourselves as lively, progressive, and aggressive, yet we find ourselves not a little taxed in all our modern ideas and thoughts to even keep abreast of you.

But a few short months ago there dwelt among you a leader whose ability, tact, good judgment, and loyalty marked him as one of the greatest statesmen of modern times; to whose suggestions and advice your Queen listened with respectful admiration; one to whom Canada lovingly and loyally paid her grateful tribute; and when over the wires was flashed the news that he had gone to his reward, all christendom testified with tender condolences to the worth of "this great,

good man." Of such a country, of such prosperity, of such *men*, this fair land may well be proud. [Applause.]

The horticultural portion has especial reason to congratulate itself upon belonging to a nation whose mother country has done so much for the advancement of this branch. To an Englishman, William Kent, we are indebted for the modern style of gardening, differing materially from the Dutch and the Italian styles. Horace Walpole spoke of him as "an original, the inventor of an art that realizes painting and improves nature. Mahomet imagined an Elysian; Kent created many." The style of gardening then introduced by him in the eighteenth century was quickly copied by other nations, and extended all over Europe. He was followed by other British artists, and the lead then secured has been maintained to the present time.

Again, the London Horticultural Society, formed through the efforts of Sir Joseph Banks and two others, obtained its charter in 1808, and nine years later was the first to establish an Experimental Garden. From this other societies sprung up, until now similar organizations are found in all the leading European cities; in fact, in Great Britain and Ireland alone there are to-day three hundred and fifteen botanical, horticultural, and floral societies.

England has produced such botanists as Hooker, Lindley, and Bentham; such hybridizers as Dominy, Bennett, and Waterer; such plantmen as Veitch, Williams, and Low; such growers as Molyneux, Turner, and Laing; and a host of others in each of the above classes, who are a source of pride not only to their own country but to the world. [Applause.]

Such a fatherland have you: to such did our own honored and revered statesman, Daniel Webster, a native of my own little State, refer, in a memorable speech in May, 1834, when he said, "A power with which, for purposes of foreign conquest and subjugation, Rome, in the height of her glory, is not to be compared; a power which has dotted over the surface of the whole globe with her possessions and military posts, whose morning drum-beat, following the sun and keeping company with the hours, circles the earth with one continuous and unbroken strain of the martial airs of England." Such is the mother country; such is the leading daughter of that parent land; such is the leading city of one of the principal provinces thereof.

To be in such a city, to be so cordially received by this people, to be privileged to assemble here for carrying out the purposes of our Convention, is assuredly most flattering and advantageous to us; and while, before coming, we looked forward to our advent here as one into a foreign land, yet we now appreciate the fact that we were separated by imaginary lines alone, and that we are come to visit, not only our

friends, but those of our own "kith and kin," and to more closely cement the common bonds which unite us.

We most heartily accept your hospitalities, and tender you our grateful thanks.

Judge HOITT's response was enthusiastically applauded.

THE PRESIDENT'S ADDRESS.

At this point, Chairman CHAMBERS having retired, President M. H. NORRIS assumed the duties of the Chair and delivered his address to the Society. He said:—

Ladies and Gentlemen, Members of the Society of American Florists: For the first time in the history of this Society, by the kind invitation of the Toronto Gardeners' and Florists' Club, we meet outside the limits of the United States; and I assure you it is a pleasant duty for me to preside in accordance with your choice, to open the business part of the Convention in this beautiful and thrifty city.

Our meetings are for the purpose of promoting and advancing the interests of our members: with that end in view we convene to deliberate and glean knowledge that will be of interest and value to us.

It is very gratifying to be able to state that our membership is still increasing, that we have more money in the treasury than at any time since the organization of the Society, seven years ago; that the several committees have attended to their duties earnestly and promptly with very satisfactory results, which will appear in their reports during the session.

The Committee on Nomenclature, composed as it is of the most able and intelligent of our members, has already exerted a salutary influence, and cannot help being a great benefit to the cause of horticulture generally. The very existence of this committee has a healthy effect, and it is a constant reminder to evil-doers that the Society has its eye on them. Let the good work go on until every purchaser can feel sure of receiving what he orders, and that whatever he buys, let it be seeds or plants, will prove to be just what the description or the illustration represents it to be.

In the way of recommendations to the Society, I find it difficult to say anything that is new or to find any ground that has not been pretty thoroughly gone over by such able and intelligent predecessors as Thorpe, Craig, Hill, May, and Jordan, who, together with many others whose names are prominent in this Society, have said and written so much that is valuable and useful to us.

To the young man with visions of future prosperity, who aims to become a successful gardener or florist, I would say, do not forget that it is not so much the opportunities as the use made of them that tells in

the end. Good honest toil during working hours, together with that intelligence which can only be obtained by study during leisure, will give you the reputation of being faithful and industrious. While I believe recreation after working hours to be necessary and desirable, yet to devote every evening during the week to pleasure is a neglect of opportunities which is sure to be felt in after years, and will do much to blight the hopes of ambitious young men. Constant work without intelligence may become a burden, but with it work will be turned into pleasure and profit.

A proper use of opportunities — and many will present themselves — will certainly bring a reward in later years; for when he enters business for himself, he will have that practical experience combined with good common-sense which will save him from many annoying mistakes and discouraging failures, and in addition to pecuniary success he will also have that respect which is only accorded to men of refinement and education.

I would say to the beginner as a florist, in the first place to make his business a success a man must be bright and active, and smart enough to succeed in any business in which he might take an interest; he must also have a love for his business.

The tendency now is to grow specialties. Some take to roses and a very few varieties; others to carnations and violets; others to bulbs and chrysanthemums; and many to bedding, stove, and greenhouse plants. The first thing to be done is to decide on what you wish to make a specialty of, for, as a rule, the greatest success is attained by having one principal money crop. Then choose a good location, where the soil is best adapted for the particular plants you wish to grow. Be sure and locate near a railroad station or within easy access to the nearest market, then erect such houses as are best fitted for the plants you take a live interest in. That florist will succeed best who will take the greatest care in preparing his flowers for the market, culling out and throwing away the poor ones. Far too many of the ordinary or inferior class of flowers are grown. There has been, however, a wonderful improvement in the quality, more especially with roses, chrysanthemums, and carnations. Who would have thought a few years ago that those flowers would sell for such high prices as they brought the past season? It only shows that the public are willing to pay for a good article, and the florist who makes quality rather than quantity his first consideration will always have a ready market with satisfactory prices. The wholesale men will have no trouble in disposing of such stock, and will be able to make good returns to the producer, instead of being obliged to consign it to the ash barrel and the dump, as is frequently done with the poorer quality.

With the retailers it is a pleasure and a satisfaction to handle first-class flowers; although they are generally very modest persons, yet with this class of stock they can stand up and face their customers and demand a price without a blush, and they will be sure to get it.

Florists in general are to be congratulated upon the great advances made in the arrangement of cut flowers. The loose, natural way of putting them together, with their long stems and beautiful foliage, with an eye to harmony of color and artistic effect, and the custom of using one or two colors only in each design, is a long step in the right direction, and a vast improvement over the style of a few years ago, where match-sticks, broom corn, toothpicks, and wire were supposed to be indispensable factors in making up designs, and an endless variety of flowers of all colors were packed stiffly together into what was wrongly called artistic work.

A successful florist always keeps his eyes open and is on the look-out for any new and rare things in his line coming on the market, not waiting two or three years and allowing his competitors to get ahead of him. He tries to avoid everything that will draw his attention from his business, for his whole soul is in it. Above all, he will avoid all small mean jealousies, and endeavor to live on friendly business relations with his neighbors. Honorable competition is commendable at all times.

This Society has done much to do away with senseless jealousies and bad feeling in the trade. The local clubs are doing a good work in the same direction, and those who have not a club in their city or town already should organize one right away. Frequent meetings with your neighbors in a business or in a social way cannot result otherwise than in a mutual benefit.

We should not forget the ladies. I would recommend they be given the opportunity to enter the business. More especially in the retail stores will they be found very useful, not only as book-keepers and cashiers, but in waiting on customers and in putting up orders. Their correct taste and their aptitude for recognizing the beautiful in form and color will make their services desirable as artists and designers, where harmony of color is so essential. There are many women to-day throughout the country that are doing a profitable business on their own account, and there is room for many more in an occupation which is so appropriate and pleasant, and for which they are so admirably fitted in refinement and taste.

I believe we should as a Society encourage public exhibitions of plants and flowers. There is no better method of advertising for the trade than by displaying our productions at such exhibitions. It educates the public taste, and this creates a demand for our goods. It

is a good sign to see the commercial florists waking up to the advantages offered by such means for increasing their business. In the past, horticultural exhibitions have been supported mainly by contributions from private collections, but in recent years much creditable work in this line has come from the hands of our commercial growers.

As the World's Columbian Exhibition is to be held at Chicago in 1893, and the time for preparation is short, it is urgent that we should make some move in the matter, if we want to make our influence felt at that great and important event. I believe we should as a Society do all in our power to assist and encourage the directory, and to insure the completion of a horticultural exhibition such as the world has never seen.

Now that the business of the Convention is open, I hope the members will attend every session until its close, as there will be plenty of time between sessions for sight-seeing and entertainments now that we meet but twice each day.

There are many valuable and interesting papers to be read and discussed, essays which have been prepared with much thought and attention. I hope the members will take part generally, expressing their views, and not hesitating to ask questions of the essayists. In that way a great amount of valuable information may be gained. And I hope that if any of the members here have succeeded in developing anything of real merit in methods of growing plants, construction or heating greenhouses, or any improvements in any way connected with the business, they will be generous enough to make it known, for we are all here to learn, and a discussion will be of mutual advantage.

I cannot close without thanking the Executive Committee, also the Secretary, for their support and kind assistance whenever it was desired; they have performed their duties cheerfully and well; also to every member, for wherever I have been, on either side of the line, I have met with nothing but kindly greetings, and the hand of friendship and brotherly love has always been extended to me.

Although we are on what is to most of us foreign soil, yet we find the fraternal ties that bind us together as horticulturists and as florists stronger than any political bonds. The kindness received by your Executive Committee at the hands of our Toronto brethren last winter is not forgotten, and the hearty words of welcome we have just listened to are a proof to us that we are in the hands of our friends.

Thanks to a merciful Providence, the death rate has been light since our last meeting, and let us pray it may long continue that we may all be able to attend many Conventions in the future, and continue to meet the same old familiar faces, and exchange annually our hearty greetings; and may the Society of American Florists long continue to pros-

per and make itself a power in the interests of floriculture, the material and social advancement and the mental uplifting of the fraternity.

The address was warmly applauded.

On motion of Mr. J. M. JORDAN, of St. Louis, Mo., the remainder of the programme of the morning session was postponed until evening, to which time the Society adjourned.

FIRST DAY — EVENING.

The Convention was called to order at 8.30 o'clock, p. m. : President M. H. NORTON in the Chair.

REPORTS OF THE SECRETARY AND TREASURER.

Secretary WILLIAM J. STEWART being called upon, presented and read his annual report, as follows: —

Mr. President, and Members of the Society of American Florists: While it is true that no specially new or striking undertaking adorns our past year's history, yet it is gratifying to be able to report that we have been making steady progress as a Society, and that much has been accomplished, quietly but thoroughly, towards the internal building up and solidifying of the organization, so that we now find ourselves financially and numerically stronger than ever before, and well prepared to prosecute our work in new directions.

The net gain in membership has been large, and this, in itself, is one sure indication of prosperity. The funds in the treasury have been steadily accumulating, and competent committees have been at work perfecting plans whereby this very necessary part of our equipment may be still further strengthened and increased.

The two lesser societies which have been fostered within our organization, the Florists' Hall Association of America, and the Florists' Protective Association, are both prosperous and self-supporting. It seemed to the Executive Committee that the request of these associations for more time and better facilities for their annual meetings than has been allotted to them in the past should be granted, and therefore one of our regular sessions — that of Wednesday evening — has been dropped, and the time given up to these bodies.

The most important undertaking now on our hands is the work of the Committee on Nomenclature. Comparatively few members of the Society have any idea of the great responsibility entailed upon this committee, or the vast amount of faithful and earnest work which has been so conscientiously done by the chairman, Mr. William Falconer, to whom this Society is under lasting obligations.

Many of the State Vice-Presidents have shown a commendable readiness to do what they could to advance the Society's welfare. There are some of these State Vice-Presidents, however, every year, who are not inclined to do any work whatever in the interest of the Society. The remedy lies with the State delegations, who should be careful to elect for the office of Vice-President only those who can be depended upon to represent their State creditably.

The number of members who paid assessments for the year 1889 was 827; for 1890, 926. The number of lapses in 1889 from the membership of 1888 was 282. The lapses in 1890 from the membership of 1889 were only 142.

From Jan. 1, 1891, up to Aug. 10 there have been added to the roll sixty-two new names. The number of new members during that period is considerably in excess of former years. A most interesting fact, in this connection, is the widely extended territory from which the accessions have come. There was one each from Indiana, Michigan, Ohio, Texas, Virginia, West Virginia, and District of Columbia; two each from Alabama, California, and Connecticut; three each from Kentucky and Wisconsin; twelve from Pennsylvania; and thirteen each from New York and Massachusetts.

As these new members have come in without any unusual solicitation, we cannot but interpret the signs as indicating that we are making good headway as a national institution. Just now we are harvesting in a field which has been hitherto scarcely touched, and no doubt the accessions to our ranks from Canada will be large.

The report of the Boston meeting contained 140 pages. Copies were mailed to all members entitled to receive the same; also gratuitously to most of the leading horticultural journals in this country and abroad, and to various horticultural societies and florists' clubs.

The Executive Committee held its regular midwinter meeting at Toronto. Besides the work of preparing a programme and attending to other details connected with this Convention, there were many matters of vital interest discussed, reports and suggestions regarding which will be presented here in due time.

Each year seems to add to the difficulties encountered in obtaining satisfactory rates of fare on the railroad. The rules of certain passenger committees, which were already over-stringent, have this year been doubled in severity. However, as we get fully as good, if not better terms than other bodies of similar size, it is not probable that any agitation of the matter would be of benefit to us.

The only death reported during the past year was one. — a phenomenally low death rate for a Society as large as ours. Fred Schlegel, of Rochester, N. Y., died on May 15, 1891. He had been State Vice-President for Western New York in 1889.

In conclusion, your Secretary takes this opportunity to acknowledge gratefully his obligation to the officers of the Society and the members in general for their kind support and willing assistance during the year that is past.

TORONTO, ONT., Aug. 18, 1891.

On motion of Mr. H. A. SIEBRECHT, of New Rochelle, N. Y., the report was approved as read, without objection.

Mr. MYRON A. HUNT, Treasurer of the Society, being called upon, presented and read his report. It was as follows:—

Receipts from Aug. 15, 1890, to July 1, 1891.

Balance on hand	\$554.87	
Membership fees	2,792.00	
Total receipts	<u> </u>	\$3,346.87

Expenditures from Aug. 15, 1890, to July 1, 1891.

Nomenclature Committee	\$95.15	
Representative to Chicago, in the interest of horticulture in connection with the World's Fair	98.20	
Representative to Washington, to look after tariff interests	24.50	
Badges for 1890	42.00	
Floral tribute to Peter Henderson	20.00	
Stenographer	130.00	
Abram French & Co., silverware	90.50	
Designing and printing certificates	95.00	
Working drawings, standard flower-pots	25.00	
Secretary's salary to Jan. 1, 1891	338.33	
Secretary's assistant at Boston meeting	25.00	
Floral tribute to Mrs. F. B. Hayes	20.00	
Miscellaneous printing	168.33	
Printing of reports	307.95	
Express, stationery, postage, etc.	135.55	
Executive Committee meeting in January	327.81	
Secretary's salary to July 1, 1891	375.00	
Total expenditures	<u> </u>	2,318.32

Leaving a balance in the hands of the Treasurer, July 1, 1891, \$1,028.55

Examined and approved.

M. H. NORTON,
JOHN CHAMBERS,
P. WELCH,

Members of Executive Committee.

On motion of Mr. H. A. SIEBRECHT, the report was approved as read, without objection.

COMMITTEES.

The PRESIDENT called for reports from standing and special committees, but no response to the call was made.

Secretary STEWART explained, by request of Chairman FALCONER, of the Committee on Nomenclature, that some important papers connected with the report of that committee, which had been sent from New York by registered mail, had not arrived, but would doubtless be received in the morning. The report of the committee would necessarily be deferred until their arrival.

Secretary STEWART here announced the Committees on Awards on Exhibits; the first name of each being that of the chairman, viz.:—

ON BOILERS AND GREENHOUSE CONSTRUCTION.—W. H. ELLIOTT, F. G. FOSTER, JOHN BURTON, HENRY DALE, EDWIN A SEIDEWITZ.

ON BULBS AND SEEDS.—ERNST ASMUS, I. FORSTERMANN, J. M. GASSER.

ON PLANTS.—JOHN THORPE, JOHN F. COWELL, SAMUEL GOLDRING, F. L. HARRIS, F. L. TEMPLE.

ON CUT FLOWERS.—WM. K. HARRIS, WM. W. EDGAR, HENRY YOUNG, JNO. H. DUNLOP.

ON FLORISTS' SUPPLIES.—ROBT. KIFT, P. WELCH, C. J. TIDY, CHAS. L. DOLE, J. A. PETERSON.

HORTICULTURE AT THE WORLD'S FAIR.

The PRESIDENT, when the order of miscellaneous business had been reached, announced the presence of Mr. James Allison, acting chief of the Department of Horticulture at the World's Columbian Exposition to be held in Chicago in 1893, and introduced that gentleman to the Society.

Mr. ALLISON came forward and said:—

Mr. President, Ladies and Gentlemen: As I presume that my credentials would be in order, I beg leave to present them at this time. They will relieve me of the embarrassment under which I might otherwise labor, and are embraced in the following letter:—

OFFICE OF THE DIRECTOR GENERAL,

WORLD'S COLUMBIAN EXPOSITION,

CHICAGO, ILL., U. S. A., Aug. 17, 1891.

MR. JAS. ALLISON,

Acting Chief of Horticulture,

World's Columbian Exposition.

DEAR SIR,—You will please proceed, without delay, to Toronto, to attend the International Convention of American Florists, to be held in that city on the 19th inst.

There is a request made by the officers that some one connected with the management should be there to give the members of the Convention an idea of the buildings, the conditions of the department, etc., at the present time.

You will take such maps, charts, and literature as we have on hand, and inform yourself as well as the time will permit on the situation, in order that you may be able to properly represent the department before the Society of American Florists.

Yours very truly,

GEO. R. DAVIS,

Director General.

In accordance with these instructions, I am here to carry out, as far as my ability will serve, the very best interests of this important department. I shall have to ask your indulgence for any shortcomings on my part, as up to the date of receiving the letter I had no knowledge of such action by the World's Fair managers. Fortunately for me and for your Society as well, I am not commanded to deliver a lecture upon horticulture, floriculture, viticulture, or anything pertaining to these subjects, so that I shall not be obliged to tax myself or weary you by telling you what I do or do not know about these and kindred subjects, which would make quite a large and interesting volume; but you will find me a ready and attentive listener at all times. Having been commissioned by Director-General Davis to be present at this meeting and by my presence to assure you of his own personal regard and the interest he has in the great work in which you are engaged, and to enlist your hearty co-operation in making one of the grandest exhibits in this department ever given this side of Paradise itself, I tender you the compliments of the World's Columbian managers, together with their best wishes for a successful meeting. In any manner as suggested that I may be able to serve you, I am at your command.

It may be proper for me to state that the temporary assignment to me of this department is in addition to my regular work, that of chief of the Department of Manufactures, and in which I am very busily engaged. Perhaps the Director General may have thought that I was not sufficiently employed in exploiting the department that is to occupy a building covering an area of thirty acres and upwards, and to be filled with the very choicest exhibits, embracing every class and variety of manufactured products. However that may be, I assure you that the Department of Horticulture shall not suffer in my hands, if I can have your able assistance and very desirable support.

It may not be out of place for me at this time to give you an outline of the general plans, scope, and character of this great work in

general. The buildings and grounds embraced in this gigantic undertaking cover an area of between 600 and 700 acres, and for natural effect and beauty it is safe to say are unsurpassed in this or any other country. The grounds are in the hands of competent landscape artists, and the foundations of many of the buildings have been laid and the structures are rising upon them. The grounds occupy the improved and the unimproved portions of Jackson Park, on Lake Michigan; connected on the west side with a broad avenue known as "Midway Plaisance," some 300 feet in width and one and a half miles in length, with an entrance into the South (or Washington) Park. It is designed to skirt this beautiful avenue or boulevard, on either side, by the "Congress of Nations" for the entire distance. In addition to the progressive ideas of transportation back and forth as shown through this avenue and the Fair grounds proper, the original methods of locomotion and transportation as used by the natives will be seen in all their primitive glory. The buildings will be dedicated Oct. 12, 1892.

The Exposition is intended to be opened May 1, 1893, and will run for a period of six months. It is proposed to build a grand pier and Casino away out in the lake. From this point, let us take a bird's-eye view of the panorama of the World's Fair and the great Columbian Exposition buildings, before the exhibits and the people come to distract our view and study. First, the Administration Building, the Exposition headquarters in fact, rises directly in front of us. This building is the gem of all the architectural jewels of the Exposition. It will cost \$650,000, and will cover a space 250 feet square, and occupy the most commanding position on the grounds. It will consist of four pavilions 84 feet square, one at each of the four angles of the plan, and all connected by a great central dome 120 feet in diameter and 250 feet high. In the centre of each facade is a recess 93 feet wide, within which is a grand entrance to the building. A comparison of this may be had by referring to the height of the spire of St. James Cathedral in this city, which I am informed is about 40 feet higher.

Mr. ALLISON then gave a detailed description of the external architectural embellishments and interior decorations of the Administration Building, and then proceeded as follows:—

Next, on the left, looking from the Casino, will be the Agricultural and Machinery Halls, the former on the lake. With the exception of the Administration Building, the Agricultural Building will be the most magnificent structure on the grounds. In size it will be 800 by 500 feet, and severely classic in style. It will be almost entirely surrounded by artificial lagoons. The features of this building are its five pavilions, one at each corner and one in the centre. The corner

pavilions are 64 by 48 feet square; the grand entrance on the north, sixty feet wide, leading into a vestibule thirty feet deep and sixty feet wide. At the entrance appear Corinthian columns five feet in diameter and forty feet high. Beyond these massive columns is the rotunda, 100 feet in diameter, surmounted by a glass dome 130 feet high. There are eight inner entrances thirty feet wide. The roof will be principally of glass.

Right over this building you will observe the cupolas and spires of the palace that is to be devoted to the exhibition of the possibilities in electricity. It covers a space of 700 by 350 feet, or more than five and a half acres. The style is the Italian renaissance. It is 60 feet high and ornamented with designs suggestive of the department.

Mr. ALLISON then proceeded to give an interesting description of the magnitude and beauty of the various proposed buildings devoted to the Departments of Machinery, Electricity, Mining, Transportation, etc., and continued:—

A little to the right of the Transportation Building you see the crystal dome of the Horticultural Building. This fairyland structure is immediately south of the entrance to Jackson Park from the Midway Plaisance, and faces east on the lagoon, where, of course, there are boat landings. It is 1,000 feet long, with an extreme width of 286 feet. The plan is a central pavilion with two end pavilions, each connected with the centre pavilion by front and rear curtains, forming two interior courts, each 88 by 270 feet. These courts are beautifully decorated in color. The central pavilion is roofed by a crystal dome 187 feet in diameter and 113 feet high, under which will be exhibited the tallest palms, bamboos, and tree ferns that can be procured. All the pavilions have galleries, those in the end pavilions being designed for cafés, the situation and surroundings being particularly well adapted to recreation and refreshment. These cafés will be surrounded by arcades on their sides, from which charming views can be had. The exterior is in stucco. The cost will be about \$400,000. In addition to this building, about 200,000 square feet of ground have been assigned for such purposes as may be required by the Horticultural Department.

Immediately to our right is the building for manufactures and decorative arts. It is the largest building on the grounds, covering an area of upwards of thirty acres, and is magnificent in outline and architectural conception, with large central dome feature. There are the United States Government Building, the Woman's Pavilion, the Fish and Fisheries Building, and the Illinois State Building away over to the right; and probably here will be the nucleus for the State buildings.

The Fisheries Building will be built on a banana-shaped island, and will be 1,100 feet by 200.

The Naval Exhibit is to be something extraordinary and unique. There are many other buildings yet to be designed, including those for the several States as headquarters and the foreign government buildings.

I have simply given you this glance, hurriedly prepared, so that you might be the better able to form some idea of what the World's Columbian Exposition is designed to be, and in which we invite you to take an active part. The buildings alone are to form a striking feature and attraction in this great work, and are estimated to cost from \$12,000,000 to \$15,000,000. With these preliminaries, I am ready for business, and will be glad to confer with any committee you may nominate, and to give them any further information I may possess in the promotion of our mutual interests. I have copies of the classification and sketches of the Horticultural Building in my room at the hotel, and will be pleased to distribute them as far as they will go. If the Secretary will kindly furnish me with a list of your members, with their addresses, it will afford me pleasure to mail all printed matter of interest to them.

A round of applause followed the address of Mr. Allison.

Mr. ROBERT CRAIG, of Philadelphia, here presented and read the following:—

Resolved, That this Society extends its hearty thanks to Mr. Allison for his presence here to-night, and for the valuable information he has given us; and that we send to Director-General Davis our best wishes for the entire success of the World's Columbian Exposition. [Applause.]

Mr. JOHN N. MAY, of Summit, N. J., seconded the resolution.

A vote being taken, the resolution was adopted.

Mr. J. C. VAUGHAN, of Chicago, Ill., moved to extend to Mr. Allison any facilities required by him for the display of charts, maps, and such other material as he may have for the purpose of disseminating information in regard to the Exposition.

Mr. ALLISON suggested that by attaching the pictures and sketches of the Fair building to the curtains along the sides of the hall, an inspection of them could be had by the members at their leisure.

The PRESIDENT stated that permission would be given for an arrangement of the exhibits as indicated; whereupon Mr. Vaughan's motion was withdrawn.

(NOTE.—A display of the engravings and other exhibits was made during the remaining sessions of the Convention, and copies of them were distributed to the delegates.)

Subsequently, on motion of Mr. FRANK HUNTSMAN, of Cincinnati, it was ordered, by vote, that a committee of five or more members of the Society be appointed to confer with Mr. Allison, on the following day, in regard to promoting the interests of floriculture at the World's Fair. The Chair was requested, by acclamation, to make the appointments.

The committee, as constituted by the Chair, was announced as follows: Messrs. J. C. Vaughan, Frank Huntsman, John N. May, Robert Craig, F. L. Harris, and J. M. Jordan.

CHIEF OF FLORICULTURE AT WORLD'S FAIR.

At this point, Mr. JAMES DEAN, of Bay Ridge, N. Y., with the permission of the Chair, offering the following:—

Whereas, Mr. John Thorpe, the father of this Society, has signified his willingness to accept the office of Chief of Floriculture, at the World's Fair at Chicago; be it

Resolved, That the Society of American Florists gives to Mr. Thorpe a hearty indorsement as a practical florist thoroughly qualified for the position, and one whose well-known worth and ability pre-eminently entitle him to recognition by the management of the World's Columbian Exposition. [Great applause.]

Mr. JOHN CHAMBERS, of Toronto, Can.: Mr. President, I have much pleasure in seconding the resolution now offered; and I may say, as a Canadian, that I only re-echo the sentiments of all the Florists' Clubs of the Dominion in heartily indorsing the claims of Mr. John Thorpe for this position. I know of no man who is more fitted by lifelong training and experience to fill the position of Chief of Floriculture than is Mr. Thorpe. We all know of him in some way or other, and those of the profession who have not had the pleasure of a personal acquaintance with him have read of him. We feel, Mr. President, that if the Commissioners of the World's Columbian Fair will place Mr. Thorpe at the head of the Horticultural or Floricultural Department, their selection will be, to us, a guarantee that that department will be in safe hands.

The PRESIDENT stated the question on the resolution.

Mr. C. SCRIM, of Ottawa, Can., here forwarded to the Chair, as an amendment, a recommendation for the office of Chief of the Department of Horticulture; but, upon the suggestion of gentlemen near him, withdrew it for the present.

A vote being taken, the resolution offered by Mr. Dean was adopted amid general applause.

Mr. JOHN CHAMBERS: Mr. President, I now move that a copy of the resolution just adopted be forwarded promptly, and if possible this

evening, to Col. Davis, Director General of the World's Columbian Exposition, at Chicago; and that the sentiment of the Convention, as indicated in the resolution, be expressed in the strongest possible language.

The motion was adopted by a unanimous vote and with applause, and later a copy of the above resolution was telegraphed to Director-General Davis.

Mr. C. SCRIM, of Ottawa, here moved that the Society indorse the appointment, by the Board of Control of the World's Fair, of Mr. J. M. Samuels, of Clinton, Ky., as Chief of the Department of Horticulture.

Mr. SCRIM, in support of his motion, said that he had been an employe of Mr. Samuels; that he had known that gentleman for a number of years, and had found him to be truly a gentleman. He said that Mr. Samuels was well informed in all the branches of horticulture, had travelled extensively, and would give entire satisfaction in the position named. He thought that a man could not be found in the present assemblage, or among American florists, who would be more capable of representing horticulture than the one he had named.

Judge C. W. HORR, of Nashua, N. H.: Mr. President, I have only to say that I think the indorsement of this Society should mean something, and therefore should not be given without due consideration. I think that, before they undertake to indorse a man for an honorable and important position, the members of this Society should be thoroughly conversant with him and have actual personal knowledge of his qualifications for the position. Perhaps the qualifications of the gentleman now named are such as have been represented, but I confess that I am not aware of the fact. I would like to be enlightened in regard to it, and to have an opportunity to look into the matter for myself, so that I may vote understandingly upon it. Therefore, in order that this Society may not act in the dark, but may vote intelligently when it does vote upon the motion, I move that the matter be laid on the table.

Several delegates seconded the motion of Mr. Hoitt, and it was adopted with but one dissenting voice.

The next item of business being "Discussion of the President's Address," remarks were invited by Vice-President CHAMBERS, who temporarily occupied the Chair.

No response was made, and the Chairman remarked that the address had apparently given general satisfaction, as no member seemed disposed to criticise it.

President NORTON then resumed the Chair.

THE FUTURE OF FLORICULTURE.

The first essay on the programme, on "The Future of Floriculture in America," was here read by the author of it, Mr. W. A. MANDA, of Short Hills, N. J. It was as follows:—

To predict the future of anything we must first investigate the past, and the best opportunity is afforded us by the late census taken under the direction of Mr. Robert P. Porter. These statistics are presented in Census Bulletin No. 59, which every florist ought to have, as it contains very interesting data. Here we find that the first florist's establishment came into existence in the United States in the year 1800, and that only three more were started in the next two decades. In 1890 a total of 4,659 establishments were reported in the United States alone, eighty per cent of which number had come into existence during the past twenty-five years. These establishments have in use more than 38,000,000 square feet of glass, covering a space of 891 acres of ground, and their total value amounts to close on \$40,000,000, while the annual sales of plants and flowers amounted to \$27,000,000 in 1890. These figures denote that our industry is second to none in the country.

The Benefits of Floriculture.

To the professional florist it furnishes an honorable and remunerative business, through which thousands are employed, while to the amateur florist and flower fancier there can be nothing which will bring such a pleasure and joyful pastime as the cultivation of plants and flowers on either a small or a large scale. For floriculture is not a trade but a profession, branching into science on the one hand and art on the other, and is a calling of which any man can be proud.

The standard of ability in floriculture is not always denoted by financial success. On the contrary, the ablest floriculturists of the past or present to whom the public owes tribute have rarely amassed any fortune, but have built lasting monuments to themselves in the reproductions of their lifelong labors. While not very encouraging, we must hope that the future floriculturist of this country will devote more of his time to work and researches that will benefit posterity. For could not a florist, who has six greenhouses filled with remunerative plants, have a seventh for a class of plants which he may favor, and which he might improve by cultivation and bring up to the same standard of perfection as are many other plants at present? Look at the evolution and improvement of the Rose, the Pansy, the Carnation, the Chrysanthemum, the tuberous-rooted Begonia, and others. Compare the most perfect improved variety with the original from which it

was raised; and other plants, by being cultivated, selected, and cross fertilized, could be brought to the same state of perfection, and bring to the raiser not only reimbursement for his trouble, but also the well-earned name of horticulturist.

The Cause of Growth of Horticulture.

As the country gets settled, the bare necessities secured and a home built, the next thing that people think of is the beautifying of their homes with trees, shrubs, and plants of all descriptions; and with the growth of wealth in the country, and the daily increase of the leisure class who can afford to build great mansions with conservatories and greenhouses, in or near all the larger towns, the demand for fine tropical plants will increase year by year.

Among the best aids to horticultural advancement are horticultural societies and clubs, at whose meetings the flower-loving public come together and hear interesting essays and discussions on the numerous branches of floriculture, by which they bring new members to whom they impart the same life and enthusiasm.

The exhibitions, either private or public, are the best and most direct means of interesting people in plants and flowers. There people can see plants and flowers in perfection, according to the season, in which the exhibition is held, and it can be said with certainty that half the amateurs who at present own their collections of plants have started them after having visited an exhibition of this kind.

Public gardens and parks have also been the means of advancing the love of flowers, and it is hoped that in future all the present established public gardens and parks, and those new ones formed from time to time, will be planted with a greater variety of trees, shrubs, and other hardy plants, properly labelled, which will be more ornamental than the artificial designs of beefsteak plants with a hen-and-chicken border, representing various monstrous and grotesque designs. For we may take it for granted, that while we can imitate nature, we can never improve upon her by artificial means. Such parks and gardens would not only afford rest and recreation for the weary, but would instruct the masses, and many a visitor would receive his or her first lesson which would develop a desire for the possession and culture of the beautiful gifts of nature.

One of the greatest factors in the development of horticulture is the horticultural press. It is in the same relation to the profession as is the daily press to the general public. It is looked upon as a source of information, and as an educator and recorder. What the future most needs is a horticultural press, with a regular staff of reporters, who would visit the numerous private, public, and commercial estab-

lishments, also all exhibitions, and describe new methods of culture, new plants, and other points of interest to their readers; so that in future, instead of being told of the advantages of large advertisements on account of a few extra copies, or being told of some parks and gardens or some exhibition in some far-off country, we may hear more about home. For while a sprinkling of foreign news is welcome, it should not be to the exclusion of home items. There is plenty of material here to write about, beginning with nature itself. The flora of this country furnishes subjects which cannot be exhausted for centuries. There are public, private, and commercial establishments which at times have their grounds and greenhouses gay with beautiful flowers which those who cannot see would be pleased to read about; and the various exhibitions which are held from time to time the public would like to have minutely described, and, if necessary, illustrated.

The horticultural press of the future should be the conveyer of the sentiments and ideas of the horticultural public, and not the mouthpiece of a few, whether connected in pecuniary matters or not. It should allow fair criticism and impartially represent the interests of its readers, who in turn will not fail to support it.

It will be impossible in the short time allowed me to enumerate all the advantages which this country affords for the development of horticulture. Stretching from the North Pole to the tropics, and from the eastern to the western sea, we have varieties of soil and natural conditions which, by judicious selection, will suit any plant, so that it will be but the matter of a few years when the tide will turn, and there will be more plants exported from this country than are imported, as the case is at present; and with our proximity to tropical South America, and even chances with the East Indies, we will be able to introduce and establish any tropical plants, and compete favorably with any market in the world.

It has been said that the comparative high wages in this country prevents the successful growing of plants for competition in the markets of the world. This is largely the case, but nature helps us in that respect also. We have a more favorable climate, so that a plant makes as much growth in one season as it will make in two seasons in Europe. The methods adapted for our culture are by far the simpler and best, so that this item alone will even up the difference of the extra cost of labor. And while we are now exporting only Tuberoses, Orchids, and a few bulbs and seeds, we will in time grow all our own Azaleas, Tulips, Hyacinths, Lily of the Valley, etc., not only for home consumption but also for export. Why should we not find in this large country of ours the same climate and soil as they have in Holland,

Belgium, the South of France, or England? Certainly we can, and there is a grand opening for an enterprising horticulturist.

The demand for plants and flowers varies just as much as fashion in dress. Plants that were thought the most of ten or twenty years ago are now scarcely grown at all, while other new plants have taken their place. The drift of the general taste and demand now is for more varieties than ever before. There are plants, such as the Rose, the Lily, the Violet, etc., which will always be in large demand, but not to the exclusion of others. Year by year we have noticed an increased demand for Palms, Ferns, Orchids, Chrysanthemums, and other foliage and flowering plants, as well as the long-neglected hardy perennials.

What the favorite plant of the future will be it is impossible to predict. It may be a new plant introduced from some tropical country, or it may be the improved form of some modest native plant, growing now by the wayside unobserved.

The business side of horticulture is also making rapid progress, and it is only a question of a few years when our business will have as much esteem and integrity as any other commercial enterprise.

There is no calling whatever which brings people together in such a close and friendly relation as horticulture. The Society of American Florists and other similar institutions are the means of bringing the hard-working florists to their meetings and conventions, and after refreshing their knowledge of all the important questions of the present, they sit down to an informal feast and pastime, which only strengthens their commercial relation.

Floriculture is cosmopolitan, disregarding nationality and politics. What can be a better proof than this meeting held here under the British flag in the hospitable city of Toronto, where we have been received with as hearty a welcome and treated with even more kindness than at any previous meeting in the States? This only strengthens my belief, that in the near future every one engaged in this elevating calling will form but one body; for though we may be in different branches and have individual interests at stake, yet the cause is one and general, and that is to elevate horticulture.

Mr. Manda's essay was much applauded, but there was no discussion of it.

THE QUESTION BOX.

The next essay on the programme, viz., "A Review of new Plants," by Mr. WILLIAM FALCONER, was temporarily deferred. Secretary STEWART explained that the package containing Mr. Falconer's Report on Nomenclature, which had not yet arrived but was expected by mail

to-morrow morning, also contained that gentleman's paper on "New Plants."

The PRESIDENT then introduced, as the next business, "The Question Box." He read the three questions first in order on the list, without receiving any response thereto. The next question was, "Should florists charge for boxes and packing?"

Mr. R. T. LOMBARD, of Wayland, Mass., responded briefly as follows:—

I did not know that I was to be called on to answer this question until to-night, but the question is a very plain one and can be easily answered. It is simply whether those who ship plants should pack them in the best way to prevent their injury or detention, and then make a charge for so doing. I can answer that in my own way and as far as my experience goes. I do not believe in charging for packing or boxing. I think that when a man sells a thing, he is in duty bound to properly pack it so as to protect it, and to ship it on its way.

There is only one point that I wish to bring out on this question, and that is this, that there should be a uniform system by which every shipper, while covering the cost of packing, would ship free of cost to the purchaser, so far as any charge is concerned. If there is no uniformity in a matter of this kind, we may find that while some florists are charging for package, others are perhaps cutting under in the price of their goods by making it known that they do not charge for packing. If an allowance is made to cover the cost of packing, without any special charge being made, I think the result would be satisfactory to all parties. [Applause.]

The PRESIDENT. The next question is, "What are the best twenty foliage plants, and the best twenty flowering plants, for decorative gardening?" A reply to this question has been received from Mr. DAVID ALLAN and will be read.

Secretary STEWART. Mr. Allan, who is unable to be here, handed me a list without any comments at all. It gives merely the names of twenty plants of each section. I will read them as they appear here. [Reading.]

TWENTY FOLIAGE PLANTS FOR OUTDOOR DECORATION.

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|-----------------------------|---|
| 1. <i>Musa ensete.</i> | 7. <i>Ficus elastica</i> and <i>elastica</i> var. |
| 2. <i>Ricinus communis.</i> | 8. <i>Malva crispa.</i> |
| 3. <i>Cannas.</i> | 9. <i>Amaranthus</i> , crimson foliaged. |
| 4. <i>Eulalia zebrina.</i> | 10. <i>Celosia pyramidalis.</i> |
| 5. Palms. | |
| 6. <i>Dracænas.</i> | |

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|---|--|
| 11. <i>Coprosma Baueri</i> variegata. | 17. <i>Begonia rex</i> , in shady places. |
| 12. Agaves in variety. | 18. <i>Aralia Chinensis</i> . |
| 13. <i>Caladium esculentum</i> . | 19. <i>Bambusa aurea</i> , in damp places. |
| 14. <i>Abutilon Thom.</i> variegata. | 20. <i>Eurya Japonica</i> variegata. |
| 15. <i>Cannabis sativa</i> . | |
| 16. Ferns, in variety, in shady places. | |

TWENTY FLOWERING PLANTS FOR OUTDOOR DECORATION.

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|---|---|
| 1. Azaleas, Ghent and Mollis. | 11. <i>Yucca filamentosa</i> . |
| 2. Rhododendrons, hardy and half hardy. | 12. Crozy Camas. |
| 3. <i>Kalmia latifolia</i> , in shady places. | 13. Gladioluses. |
| 4. <i>Andromeda speciosa</i> , in shady places. | 14. <i>Agapanthus umbellatus</i> and <i>albidus</i> . |
| 5. Clematis, of the Jackmanii type. | 15. Tuberous-rooted Begonias, in shady places. |
| 6. <i>Lilium auratum</i> . | 16. Paonies, double and single. |
| 7. Rose, Clothilde Soupert. | 17. <i>Iris Kampferi</i> . |
| 8. <i>Anemone Japonica alba</i> . | 18. Montbretias. |
| 9. Hollyhocks. | 19. Hydrangeas, hardy and half hardy. |
| 10. Dahlias, double and single. | 20. Viburnums, in variety. |

The PRESIDENT explained that the next question, "How to successfully manage floral exhibitions," would be passed over informally, as Mr. John Thorpe, to whom the reply had been assigned, was not present.

He announced, as the next question, the following, "What are the best twelve companions to India Rubbers and Latamias for house decoration?" The following named gentlemen had been assigned to respond to this question: Messrs. F. G. Foster, Robert Craig, W. K. Harris, and W. R. Smith.

Mr. F. G. FOSTER came forward and responded as follows: The purport of this question, it appears to me, is somewhat indefinite. I take it to mean plants for hard wear in a house, not for temporary decoration. Assuming that to be the sense of the question, I have compiled what I had found in my experience to be twelve of the best for every-day use; many of them being patient and long suffering. I would head the list with *Pandanus Veitchii* and its sister, *utilis*. Those are two plants that, I think, need no comment from me. Then we have the *Areca lutescens* and the *Kentia*. You may take any variety of the latter you like. Next we have *Phoenix reclinata* and *Aspidistra variegata*, then *Dracena fragrans*. And if you have a lady's room, in which you want to put a nice little plant, take *Coeos Wedde-*

liana, one of the most beautiful little plants that we have for that purpose. Next I name *Cyperus alternifolius* and *variegata*. I conclude with two plants that, I think, are much neglected: *Aralia Sieboldi* and *A. Sieboldi variegata*.

The PRESIDENT. The object in having three or four gentlemen reply to the same question is that it may be seen how nearly they agree on the same plants. The next response will be by Mr. ROBERT CRAIG. [Applause.]

Mr. ROBERT CRAIG responded by reading the following:—

In attempting to answer this question, I shall assume that by the term "companion" is meant only those that have some qualities in common with the plants named in the question, and I take it that the useful points in the *Latania* and *Ficus* (I suppose the variegated form of the latter is, as it certainly deserves to be, included: it was introduced over twenty years ago, but has not been grown in large quantities, and is only now beginning to receive the attention it merits: it is, I think, destined to be largely used in the near future) are their handsome and striking foliage, and the pleasing tropical appearance of the complete plant: they are both typical of beautiful forms of vegetation not indigenous to this country, and not a little of their desirability for house decoration lies in the fact that they present different forms of beauty than are exemplified in the native and other plants we enjoy in our rambles in the field and garden, and which seem to be in their most appropriate place when growing outdoors. While endeavoring to name plants which may fitly be called "companions," I will also try to mention those as distinct as possible in form and color, for there is a charm in diversity: one thing to be avoided in a decoration of any kind is any undue appearance of monotony: a decoration of *all* *Latania*s and *Ficus* would not be pleasing, and plants that resemble them closely are not so desirable as those which embody different types of beauty, either in form or color or both.

As I am limited to only twelve plants, I deem it advisable to allude to only those which are within easy reach of every florist, and which can be obtained at a reasonable price: many elegant and durable decorative plants, such as, for instance, *Dracenas Kuerekii* and *umbraculifera*, *Anassasa sativa variegata*, etc., are omitted from the list I shall name, only because they are slow of propagation and therefore costly: but there is good reason to hope that in a very few years these, and other valuable plants now rare, will be available at a reasonable price through the efforts of some of our enterprising cultivators, who already have farms in the tropics, where they may be grown outdoors at a trifling cost.

The first plant I name is *Areca lutescens*, a well-known, tall-growing palm, of exceedingly graceful habit, admirably adapted for decorative purposes: a plant six feet or more in height can be grown in an eight-inch pot; by the way, it is wonderful how large a plant of most of the palms can be grown in comparatively small pots by proper attention to soil, syringing, and feeding with manure water, etc. The value of a decorative plant is greatly enhanced by the relative *smallness* of the pot; the old Philadelphia plan of charging extra on account of a large pot is falling into deserved disrepute.

Kentia Belmoreana and *Forsteriana* are indispensable. Both are of strikingly handsome appearance, and are among the toughest of the palms; not easily broken by handling, and not easily damaged by changes of temperature or by coal or other gas too frequently found in dwellings. *Kentia Forsteriana* is taller than *Kentia Belmoreana*, and very suitable for the corners of rooms when it is desirable not to encroach too much on the space: *Kentia Belmoreana* being of more spreading habit shows to better advantage when standing on a table, or otherwise placed so that it may be seen from all sides.

Raphis flabelliformis: this well-known palm is very valuable on account of its durability and toughness, and its very distinct character.

Phoenix rupicola is the handsomest species in the genus, and well deserves a place in the most select collection of decorative palms; it is very distinct and most graceful: it is also not easily injured.

Cocos Weddelliana is also one of the finest decorative plants, of slender, graceful form.

Aspidistra lurida (and the variegated form) is probably the "hardest" plant in general use for decorative purposes; it will sustain, without injury, as much "knocking about" as anything in cultivation: any temperature from 34° to 80° suits it.

Araucaria excelsa glauca is deservedly growing in popularity, and is one of the very best house plants: small and medium-sized plants are especially adapted for dinner-table decoration, but it is beautiful in almost any position.

Pandanus Veitchii is another most popular and useful plant: its striking, symmetrical outlines and handsome variegation make it welcome in any group; it is also admirable when standing alone.

Pandanus utilis is another easily grown and almost indispensable plant; with a little care it will grow well all winter in an ordinary room.

Dracena terminalis, while not so tough and hardy as the plants above mentioned, is most useful on account of its bright red color.

Cycas revoluta is a most distinct, handsome, symmetrical plant; small and medium-sized specimens are well adapted for house decora-

tion; they are not nearly so scarce as they were a few years ago, and can be bought at reasonable prices. With ordinary good care it will do well in the house all winter, and if put outdoors in spring will probably make a new set of leaves each year.

Phormium tenax variegata is unique as a decorative plant; very bold and striking in its outline; its flat form admits of its being placed in spaces too narrow for most other plants; it is not easily broken or injured, and is destined to grow in popularity.

MR. WILLIAM R. SMITH made the next response to the question. He said: This question is one of considerable interest. *Latania Borbonica* stands at the head of the list. Its true botanical name is *Livistonia sinensis*. It would be an injudicious thing, however, to change the name in a commercial way. The botanical name has been changed, but the plant is known to commerce as *Latania Borbonica*. *Ficus elastica* is the next. Of the thirty species of *Ficus*, not one except *Chauvieri* will stand the dry atmosphere of a room.

I then take *Areca lutescens*. When planted three in a pot, quicker results are obtained than otherwise. It is the only palm I know of that you can plant three in a pot and get a good specimen.

I have put fourth, *Dracena fragrans* and its variety, *Lindenii*.

5. *Cordyline terminalis* and its varieties.

6. *Pandanus Veitchii*. It should be well established in the pot before being put in a dry atmosphere. Careful selection of the cuttings is essential in this case.

7. *Pandanus utilis*. It is largely used in hotels and restaurants of Paris.

8. *Aspidistra lurida* and *variegata*. Will stand more bad treatment than any plant that can be named for house culture.

9. *Kentia Belmoreana*. Slow but very fine.

10. *Phoenix rupicola*. Slow but grand.

11. *Phoenix canariensis*, or *reticulata*.

12. *Dracena Goldiana*.

There are a few other plants that might be substituted as good seconds, viz., *Cordyline australis* and varieties.

Dianella ensifolia, or Goddess of the Dancing Grove; a rich green; does well without much light.

Sanseveria Zelanica.

Yucca Guatemalensis (syn. *Ghusebriichtii*) *Cyperus alternifolia*, or Palm Grass.

Aralia Sieboldii.

[Applause.]

MR. W. K. HARRIS'S response was read by Secretary STEWART as follows:—

We would infer that in the estimation of the one that asks this question, the Rubber and *Latania* stand first on the list of decorative plants; and if I should express my opinion, it would be the same. What is prettier in the list of palms than a well-grown *Latania Borbonica*, about fifteen inches high, in a six-inch pot? And what a giant of grandeur is the specimen fifteen or twenty feet high!

The *Ficus elastica* well grown is one of the noblest decorative plants we have, and there is no plant that will stand such a variation of treatment; it thrives in a room or window, and it delights in full sunshine in summer.

My idea of a well-grown Rubber is not what we usually see in the florists' store windows, which they ask the public to buy.

A plant two or three feet high, one third of the stem without foliage, and what foliage it has is dull, drooping, hugging the stem as though it had an attack of ague from which it would never recover, but linger on for a few months, to be finally sold cheap to some grower for stock, who thinks he has made quite a business venture and is happy. Growers of this kind usually have a full greenhouse and an empty purse.

My idea of a specimen Rubber is a plant from two to ten feet high, from one to a dozen shoots, clothed with bright, clean, erect foliage from the ground up; and I assure you that Rubbers so grown are noble, decorative plants, either in the parlor or garden. We have some growers in Philadelphia that grow them as I have endeavored to describe.

Happy is the man that can combine such beauty and health.
The effort will give him joy, the achievement wealth.

But to the question, "What are the best twelve companions to the India Rubber and *Latania* for house decoration?"

The first I will mention is *Ficus elastica variegata*. This is a most beautiful plant, very decorative, and, like its parent, will stand a good deal of hardship.

Then comes the *Pandanus Veitchii* and *utilis*. These plants are so well known for their beauty and decorative qualities that they need no further remarks.

Araucaria excelsa is one of great beauty, and cannot be well spared where the best effect is wanted.

Dracena fragrans is one of the most effective plants in a group; it is easily grown and stands well.

Dracena terminalis, if well colored, gives a fine tone to a decoration.

Aspidistra elatior variegata, on account of it being so durable and capable of standing so much abuse, we cannot well omit.

Of the many palms we have in cultivation, *Areca lutescens* with *Latania Borbonica*, for beauty and decorative purposes, lead the list.

Perhaps the next best would be *Kentia Behnoreana* or *Forsteriana*. Either of these *Kentias* makes a very fine specimen, and they stand the dry atmosphere of a room.

Phœnix rupicola or *reclinata* make very fine specimens, and are very decorative.

Seaforthia elegans has a fine tropical appearance, but is a little tender.

Cocos Weddeliana is one of the most graceful palms as a small specimen, and very effective around the edge of a group.

The above twelve plants named, I think, are the best companions to the Rubber and *Latania*, as they can easily be procured. I have kept my list to popular plants that are generally grown. Among palms I could have mentioned *Pritchardia grandis* and many other fine, costly plants that would be more effective, but useless to name, as such plants could be had only by the very few.

As I have made this a rather lengthy answer, I will conclude with my address to the Rubber: —

Thy noble form surrounded with companions like these,

In any court of refinement, thou wouldst be sure to please.

[Applause.]

After receiving an invitation, through Mr. John Chambers, of Toronto, to attend the garden party at Alderman Hallam's, to-morrow afternoon, also an invitation to those interested in Rose and Carnation culture to visit the greenhouses of Mr. H. Dale, at Brampton, the meeting adjourned.

A CARRIAGE RIDE.

On Tuesday afternoon the visiting ladies were treated to a drive through the principal streets of Toronto, and after being shown the public buildings and private residences, they were taken to Island Park across the bay, where refreshments were served. The ladies were afterwards joined at the Park by a large number of the members of the Society, and all enjoyed the outing.

GARDENERS' AND FLORISTS' CLUBS.

A meeting of delegates from Gardeners' and Florists' Clubs convened at Horticultural Pavilion at 3.40 P. M., Tuesday, Aug. 18.

Mr. WM. SCOTT, of Buffalo, was called to the Chair, and Mr. A. H. EWING, of Toronto, was appointed Secretary.

The CHAIRMAN explained that he did not fully understand the object of the meeting, but believed that its primary purpose was to afford an opportunity for an interchange of views upon pertinent topics by way of mutual benefit.

An informal discussion followed in a conversational manner.

Mr. D. B. LONG, of Buffalo, who was called upon to state the object of the meeting, replied that the call for it had not originated with himself, but that the matter had been brought to his notice in the columns of the "American Florist," and, having been impressed by its importance, he had favored it. He thought that if the delegates came together at the annual meetings of the Society with power to act on certain matters, much good might be accomplished which could not otherwise be attained. He suggested, as a starting point for discussion, the subject of the financial backing necessary for flower shows.

Several delegates, being called upon by the Chair to state their experience, explained that having had no practical knowledge of exhibitions, their opinions on the subject had not been matured.

A delegate spoke of the resort to a guarantee fund in the running of exhibitions in certain cities. This, however, he explained, had been regarded as a temporary expedient, and one which it was hoped could be dispensed with.

The CHAIRMAN stated that in Buffalo, citizens had been asked to subscribe to a guarantee fund, and he was glad to be able to say that the guarantors had not been called on for one penny, as there had been no occasion for it. He said the guarantee scheme was something that was repugnant to him.

Mr. JAMES DEAN, of Bay Ridge, N. Y., referring to the floral exhibition in the city of New York, held last spring, attributed the financial failure of it to the fact that it had not been sufficiently advertised. He thought that the cause of the failure of similar exhibitions elsewhere was to be found in the lack of advertising. With respect to a guarantee fund, he said he could see no objection to a club, especially a young organization, going outside and asking assistance from the citizens.

Mr. GEORGE V. SMITH, of Baltimore, expressed the opinion that exhibitions would be more successful if handled by practical gardeners, instead of being made dependent upon rich men who were not gardeners. He also argued that only such material should be exhibited as the people wanted to buy and the gardeners wanted to sell.

Messrs. L. H. FOSTER, of Boston, and R. T. LOMBARD, of Wayland, Mass., expressed their concurrence in the view that liberal advertising was indispensable.

Mr. W. H. ELLIOTT, of Boston, explained that the invariable success of the exhibitions in that city was due, not to any superior ability or system on the part of the trade, but to the fact that those exhibitions had been aided by the wealthy men of Boston. He referred to the Massachusetts Horticultural Society (which he understood to be the wealthiest society of its kind in the world, except possibly that of London), and to the financial backing which it gave to these enterprises.

Mr. D. B. LONG described a lithographic show-bill for the use of clubs, which he said would be furnished by a company in Buffalo at less than the usual rates, provided a sufficient number of the bills were ordered.

Several delegates, in reply to the suggestion of Mr. Long, expressed their unwillingness to take any action that would impose a pecuniary obligation upon the clubs they represented. They intimated that the matter would be presented by them at future meetings of their clubs.

During the informal remarks that followed, various topics were suggested and briefly discussed. Concerning prices of admission to exhibitions, the consensus of opinion was that low rates attracted the public, and realized more money than higher rates; a twenty-five cent charge yielding a larger revenue than one of fifty cents. The effect of the presence of conventions of the National Society in an increase of the membership of local clubs was adverted to, and also the distinction between active and subscribing members of such clubs. It was stated that, in many localities, active membership was confined strictly to those who are dependent upon the business for their livelihood. The practice of appointing ladies as judges in making awards was complained of as having given dissatisfaction to exhibitors because of defects of judgment. Mr. F. G. FOSTER, of Toronto, commended a system of one judge, instead of three, which had been tried satisfactorily in Toronto, and which he hoped would become universal.

Mr. H. MITCHELL, of Philadelphia, suggested the propriety of the enrolment of the names of the delegates present, for future reference; and a motion to that effect was adopted, after which the meeting adjourned *sine die*.

SECOND DAY—MORNING.

The Convention reassembled at 10.30 A. M. ; President NORTON in the Chair.

The first business was the selection of the place of meeting in 1892.

Mr. CHARLES F. HALE, of Washington, D. C., said: In behalf of the National Gardeners' Club, of Washington, D. C., I respectfully invite this Society to meet in that city next year. [Applause.]

Mr. JOHN N. MAY, of Summit, N. J. It affords me much pleasure to second the motion of Mr. Hale. Washington is the intellectual centre of this continent. We may not be entertained there in the same lavish way in which we have been treated elsewhere, but we will find there an intellectual feast that can be partaken of nowhere else on this broad continent. Our great institutions of science and literature are concentrated there, and I do not think we shall err in paying a visit to the National Capital.

Mr. E. A. SIEDEWITZ, of Annapolis, Md. Mr. President, Baltimore, which seeks the honor of being selected as the place of the next meeting, is the metropolis of the South. We are very near Washington. Our Monumental City is not only one in which the most beautiful ladies in the world are to be seen, but it is known throughout the civilized world for its hospitality. Baltimore may boast of a variety of attractions, of the fine fruit crops of the surrounding country, and the unrivalled oyster traffic of Chesapeake Bay. I have no antagonism against Washington: we Baltimoreans love Washington; but, in common with every member of the Society, we wish to have a successful meeting, and therefore prefer to avoid a place that has so many side attractions as has the National Capital.

Mr. SIEDEWITZ concluded by stating that, on one occasion, in a Democratic State convention held in the city of Albany, when a young member proposed to hold the next convention in the city of Saratoga, a venerable delegate exclaimed, "Young man, I have been in conventions for thirty years, and if you were as good a Democrat as I am, you would never move to take a Democratic convention to Saratoga, a place where whiskey costs twenty-five cents a glass." [Laughter.] The same objection, the speaker thought, would apply to the city of Washington. [Applause.]

Mr. R. J. MENDENHALL, of Minneapolis. Mr. President, I would remind you that both Washington and Baltimore are warm places. I want to invite you to enjoy the cooling breezes of the Northwest. I ask you to come to the coming city for conventions, Minneapolis. There we

have big prairies, big wheat-fields, and big hearts; and we can show you our lakes and rivers, and give you a ride on our big steamer, the "St. Louis." [Applause.]

Judge C. W. HORT, of Nashua, N. H., commenting upon the inducements held out by Mr. Siedewitz in favor of Baltimore, criticised in a humorous way what he called an attempt to advertise that city as a place for cheap drinks, and remarked that liquor which was sold at less than the standard price might be found to be watered. He expressed himself in favor of the selection of Washington, which, he said, though a city of magnificent distances, contained the finest public buildings to be found in any city on the continent. The Society would find there all the surroundings which were essential to the success of its Convention. He had understood that the use of one of the halls of the Smithsonian Institution would be given to the Convention. There it would be surrounded by museums and collections made at an immense expense in money and time. The Botanical Garden was another attraction, and the fact that there stood at its head a man like William R. Smith was a sufficient guarantee that the institution itself was a first-class one. In regard to the invitation to Minneapolis, he desired to say that he would be glad to vote to accept it some other year. Summing up the points in favor of Washington, he said it offered a good hall as a meeting place, it was able to entertain the largest crowds, and it presented all the inducements which could be found in any city. [Applause.]

The PRESIDENT remarked that the indications were that the Convention was not likely to go begging for an invitation this year. He added that perhaps there were other cities to be heard from.

Mr. JOHN WESTCOTT, of Philadelphia, nominated Philadelphia as the meeting place. He said: Philadelphia would like to have the pleasure of entertaining the Convention. We think it no less blessed to give than to receive, and we would like to give a little more of our time and efforts to this Society in the coming year. [Applause.]

Mr. R. T. LOMBARD, of Wayland, Mass., said he preferred to accept the invitation of Baltimore, as he believed that the time of the Convention would be less likely to be consumed in visits to public institutions than it would be in Washington, and that more attention would be given to the business of the Society. He suggested that a trip might be made to Washington as an incidental feature of the Baltimore meeting.

The PRESIDENT announced that a ballot would be taken to determine the choice of the Convention as to the place of meeting in 1892. He accordingly appointed the following-named gentlemen as tellers to receive the ballots and ascertain the vote: Messrs. W. A. Manda, Myron A. Hunt, and J. L. Dillon.

Pending the announcement of the result of the vote, several delegates, who had been temporarily absent, returned to the hall and asked permission to cast their ballots. The taking of the vote having meanwhile been completed, the Convention declined to grant the desired permission.

Finally the tellers reported, through Mr. Manda, the following as the result of the vote: For Washington, 182; for Baltimore, 48; for Philadelphia, 10.

Announcement was accordingly made that the city of Washington, D. C., had been selected. [Applause.]

NOMINATION OF OFFICERS FOR 1892.

The next business being the nomination of officers for the ensuing year, Mr. JOHN M. MAY said: Mr. President, I wish to put in nomination for the office of President a gentleman who is fully qualified for the position, but is probably not as well known to many here present as he deserves to be, from the fact that he is very modest and always keeps in the background. It does not follow, however, that his merits have failed to attract attention. He has been one of the earnest workers of this Society since its inception, and has labored for it with heart and soul, being always ready and willing to do what he could for its advancement and the elevation of its principles all the way through. He will be remembered as having last year read an interesting paper at your Boston meeting. Not only is he a florist from A to Z, but he is a man of honor and integrity, and has been known as such from the beginning. Moreover, he is one of the most genial members of our craft. I respectfully nominate Mr. James Dean, of Bay Ridge, N. Y. [Great applause.]

Mr. L. H. FOSTER, of Dorchester, Mass. Mr. President, in rising to second the nomination of Mr. Dean, I perform a most welcome duty, as I esteem that gentleman highly, and believe that he will not only make an ideal President, but that his election will be a deserved recognition of his high character. I believe that one who can successfully conduct his own business will not be less successful in promoting the interests of this Society. I therefore trust that Mr. Dean will receive the unanimous vote of this Convention for the Presidency of the Society of American Florists for the coming year.

Mr. GEORGE VAIR, of Toronto. Mr. President, I nominate a gentleman who is well known in the horticultural world and to all of you, and who has been intimately known to me in my official capacity as president of the Toronto Electrical District Society for the last twenty years. He is a thorough horticulturist and a man, every inch of him. I will not dwell upon his many good qualities, for he is so well known

to all of you that this would be quite unnecessary. I present the name of Mr. William Scott, of Buffalo, N. Y. [Applause.]

Mr. J. D. RAYNOLDS, of Chicago. Mr. President, the nominations that have just been made are very strong ones. Against these gentlemen there is nothing but good to be said, and we from the West might well hesitate about undertaking to make a nomination, if we were not very sure that we also could make a good one.

I hope, Mr. President, that the day is not approaching when it will be necessary to add more letters to your flag and to make it read, "The Society of *Eastern* American Florists." The Convention of the Society was held in Boston last summer; it is to be in Washington next summer. The Vice-President of the Society, by the usage which has already become a law or a rule, must now be selected from Washington; so that there will be the Convention in the East and the Vice-President in the East. We, in the West, think that it is properly our turn to nominate a President. It has not been a part of the rules of this Society, but it has been conceded so far, that there is great propriety in selecting a President alternately from the East and from the West. I wish to place in nomination a gentleman well known to you all, a man who certainly can excite no jealousies, because, while essentially of our trade, he is not in any way in the trade. I refer to Mr. G. L. Grant, of "The American Florist." [Applause.]

You have all known that gentleman from the start of this Society. He has devoted his entire time to working in the cause of floriculture—and that has been a great deal of time; I wonder when the man sleeps. He can do more work in twenty-four hours than any man I ever saw. He is a man of unfaltering integrity, of tremendous industry, a man whose judgment I esteem very highly, not a man to make mistakes. He knows the membership of this Society very well; he knows the capabilities of the members, and would be sure to select good men to put upon the Executive Committee. I have known Mr. Grant very intimately, and am sure that we would find in him a very live, wide-awake, hustling President. He is a man of ideas, of originality, and would be sure to make things hum. I therefore take great pleasure in nominating for President of this Society, G. L. Grant.

Mr. J. F. COWELL, of Buffalo, N. Y. Mr. President, I rise to second the nomination of Mr. Wm. Scott for the Presidency. He is too well known to the members of the Society to need any words of commendation from me, but I can assure those who do not know him that, should he be elected as President, the deliberations of the Society will be presided over by a man of rare executive ability and of unimpeachable integrity. [Applause.]

MR. G. L. GRANT, of Chicago. Mr. President, while thanking the gentleman who has placed my name in nomination for the Presidency of this great national organization, I desire respectfully to decline the proffered honor, and to cast my influence, if I possess any, in favor of Mr. James Dean, of New York. [Applause.]

MR. J. D. CARMODY, of Evansville, Ind. Mr. President, I have in my mind's eye, and also in the direct range of my vision, a gentleman whom you all know to be capable and one who stands at the head of the profession. I refer to our present Vice-President, Mr. John Chambers, of Toronto. [Applause.] We have been royally entertained here; he has worked our reception up to the highest pitch; and because of our respect for Canada, our sister country, which is just outside of our own, and which we hope to engraft into our family before long, we would like to take Mr. Chambers in with us. An American florist association may well be proud of a representative such as Mr. Chambers, and I would cordially welcome him, as I would welcome Canada too.

MR. F. G. FOSTER, of Hamilton, Canada. Mr. President, I take pleasure in seconding the nomination of Mr. Chambers for the Presidency for the ensuing year. If he is elected, there will be no question in my mind about the affairs of the Society being promptly cared for. He has the requisite ability. Those of us who know him best know that in executive ability he stands "A 1." and you all have had an opportunity to find out many of his other qualities.

MR. JOHN CHAMBERS, of Toronto. Mr. President, while I appreciate exceedingly the compliments paid me by Mr. Carmody and Mr. Foster, in the very flattering remarks they have made about me, I cannot at the present time see my way clear to accept a nomination as President of this large association. To begin with, I have not been connected with it very many years. Other gentlemen, who have been connected with it from its inception, know more of its workings, of what has to be done and what has been done by it, than I do. I have been much pleased to meet you all here, and have felt proud of the position I have occupied as your Vice-President. I do not know, Mr. President, but that, some other day, if the opportunity is again presented, I may possibly accept a nomination as your President, provided I do not feel as bashful as I do on this occasion; I can only say now that, in Mr. Dean, I believe the Society will find a man who can manage its affairs as well or better than any man whom I know. [Applause.]

On motion of Mr. H. A. SIEBRECHT, the nominations for President here closed.

Nominations for Vice-President were then invited.

MR. JOHN N. MAY. Mr. President, we are going to Washington next year, and we have a friend there, Mr. William R. Smith, of the

Botanic Gardens. I would like to see that friend made Vice-President of this Society. [Applause.]

Mr. J. D. CARMODY. I move that the nominations close. [Laughter.]

Mr. ROBERT CRAIG. I desire to second that nomination. In doing so I wish to say that I feel it is no ordinary nomination. It is one that will receive, I know, a response from every member of this Society. For thirty-six years Mr. Smith has served the government of our country in the Botanic Gardens at Washington. Many of us have been there to visit him, and we all know of the courtesy with which he receives all visitors to that place, and how he places at our disposal his extensive fund of information.

The nomination is peculiarly fitting too, because we have just selected Washington as the place of the next meeting; but there are stronger considerations for it, and these are almost without number. From the very inception of this Society, this gentleman has manifested the warmest interest in its welfare. With an enthusiasm worthy of emulation by the younger members of the Society, he has missed no Convention and no meeting. He has been always ready to advise and to counsel with the active members of the Society, and they have found his counsel always valuable. I am certain we shall not feel the need of any other nominations for Vice-President of this Society. [Applause.]

Mr. L. H. FOSTER. I second the motion of Mr. Carmody to close the nominations.

Mr. E. S. NIXON, of Chattanooga, Tenn. I move to amend the motion by instructing the Secretary to cast the entire vote of the Convention for Mr. Smith.

The PRESIDENT. That motion will be in order to-morrow, when the election of the officers takes place. Under the rules, all nominations will lie over until then.

A vote being taken, Mr. Carmody's motion was adopted unanimously.

Nominations for Secretary were invited.

Mr. J. T. TEMPLE, of Davenport, Iowa. The gentleman whom I wish to nominate does not need any recommendation; his services speak for him. I take pleasure in nominating our present Secretary, Mr. William J. Stewart, of Boston.

Several delegates seconded the nomination.

On motion of Mr. J. D. CARMODY, the nominations for Secretary were declared closed by a unanimous vote.

Nominations for Treasurer were invited.

Mr. EDWIN LONSDALE, of Philadelphia, nominated Mr. Myron A. Hunt, of Terre Haute, Ind.

Mr. D. D. L. FARSON, of Philadelphia, seconded the nomination, and moved that the nominations now close.

The motion was carried unanimously.

SUBTROPICAL BEDDING.

The PRESIDENT announced, as the next business, an essay on "Subtropical Bedding," by Mr. DAVID ALLAN, of Mt. Auburn, Mass. He explained that a recent family bereavement had prevented the attendance of Mr. Allan, but that that gentleman had fulfilled his promise and written his paper, which had been received and would be read.

Secretary STEWART here read the essay, which was received with applause. It was as follows:—

Our high summer temperature is very favorable for the growing and planting extensively of this most gorgeous, interesting, and highly decorative class of plants. There has been a great deal of prejudice against them. It is thought by many that they are expensive; but this is not so: they are like all other plants, some expensive, and some not. For instance, an effective bed or border of such plants as Castor Beans, Cannas in variety, Amaranthus, Eulalia Japonica, and other grasses can be had for a moderate sum.

Then, again, such plants as Palms, Cycads, Tree ferns, Musas, Dracenas, etc., cannot be grown or furnished without expense. A mixture of the former and the latter has a grand effect: for the noble Palm will always keep its place.

Some good ones for that purpose are *Chamarops excelsa*, *Cycas revoluta*, *Seafortia elegans*, *Latania Borbonica*, *Phoenix rupicola* and its many varieties, *Areca lutescens* and *sapida*, *Caryota urens* and *sobolifera*, and hosts of other cool growing noble Palms.

Dracenas well worthy of a place are *Dracena Australis*, *D. Draco*, *D. indivisa variegata*, also *D. Guilfoillii*. The bright colored varieties, such as *D. terminalis* and the garden hybrids, do not succeed well unless planted in shady places.

Tree ferns, *Cyathea dealbata* and *C. excelsa*, *Dicksonia antarctica*, *D. aborescens*, and *D. davallioides*. Many of our hardy ferns can be used with fine effect in the subtropical garden: such as *Adiantum pedatum*, *Osmunda regalis* and *cristata*, *O. cinnamomea*, *O. Claytoniana*, *O. gracilis*, *Struthiopteris Germanica* and *S. Pennsylvanica*. Several Japanese varieties do well, as *Woodwardia radicans*, *W. Japonica*, *Asplenium Filix femina*, and others.

Of ornamental grasses there are many fine varieties, but some are not hardy, except in certain soil. For instance, *Eulalia Japonica* will not winter with me in a heavy clayey soil; but across the river, in a gravelly soil, it stands first rate: therefore, we with the heavy soil

have to store them away in cold cellars. That is the way Robert Fortune tells us the Japanese shelter their subtropical plants; having no greenhouses, they resort to cellars and sheds.

Some good varieties of the above are: —

<i>Gynerium argenteum.</i>	<i>Agrostis nebulosa.</i>
<i>Arundo conspicua.</i>	<i>Agrostis elegans.</i>
<i>Arundo donax.</i>	<i>Hordeum jubatum.</i>
<i>Eulalia Japonica.</i>	<i>Lagurus ovatus.</i>
<i>Eulalia foliis striatis.</i>	<i>Panicum palmifolium.</i>
<i>Eulalia zebrina.</i>	<i>Panicum virgatum.</i>
<i>Briza maxima.</i>	<i>Pennisetum longistylum.</i>
<i>Briza minor.</i>	

The rapid improvement with marvellous results in the raising of new flowering Cannas by M. Crozy and M. Lemoine, of France, will have a sure tendency to boom all subtropical plants for outdoor summer decoration in the pleasure ground.

Some favorable places for subtropical planting are the open squares, called court-yards, of large hotels and other buildings similarly situated. There the Banana would make a perfect leaf without being torn with the wind. In such places Palms, Dracenas, Cannas, Caladiums, Musas, etc., would be appropriate. It would be a consideration of profit and gratification to proprietors, as well as to the nurserymen supplying such, and rendered doubly so if the same space were filled in the fall with *Retinosporas* in variety, or other coniferæ.

All subtropical plants like a rich, deep, extra well-manured soil.

Of Cannas there is now an endless variety, but we cannot dispense with all the old ones on account of their effective foliage, such as *nigricans*, *liliiflora*, and *Indica*. All the new dwarf varieties excel in their brilliant color and effectiveness on the lawn.

We have now flower spikes in summer with trusses like *Rhododendrons* in spring. Our friend, Mr. E. Lonsdale, in writing to the "American Florist," regrets the want of good self-yellows, and perhaps rightly so. I see good self-yellows coming up among the dwarf seedlings. Still, beds of such varieties as *Admiral Courbet* and *Mme. Just* have a golden display in the flower garden that I have not seen equalled in midsummer since I left the Herbaceous *Calceolaria* in old England fifteen years ago.

Oncidium spotted varieties, such as *Francois Corbin*, are more effective in borders than massed in beds; but such varieties as *Jules Chretien*, *Mme. Crozy*, *Princesse de Lusignan*, *Paul Bert*, *Admiral Courbet*, *Mme. Just*, *Thomas S. Ware*, *LaGuill*, *Sir de Jeanne Charreton*, *Jacquemet Bonnefond*, *M. Cleveland*, *Star of '91*, *Général*

de Négrier, Antoine Chantin, are all grand massed in beds, each variety separate, being sure that the beds are well manured, and an abundance of water after planting.

Other good plants suitable for subtropical work are:—

<i>Acacia lophantha.</i>	<i>Rhus glabra.</i>
<i>Acanthus glandulosa.</i>	<i>Yucca aloifolia.</i>
<i>Aralia Japonica.</i>	<i>Yucca gloriosa.</i>
<i>Aralia spinosa.</i>	Tritomas in variety.
<i>Bambusa falcata.</i>	Nicotianas in variety.
<i>Bambusa Japonica.</i>	<i>Caladium esculentum.</i>
<i>Ficus elastica.</i>	<i>Malva crispa.</i>
<i>Musa ensete.</i>	<i>Humea elegans.</i>
<i>Solanum robustum.</i>	<i>Amaranthus salicifolius.</i>
	<i>Celosia pyramidalis.</i>

Phormium tenax is a rather stiff plant, but it will do to put in windy corners to shelter the others. A few of the best single Dahlias look well intermixed, also tuberous-rooted Begonias in favored shaded places, and some of the strong growing spotted Caladiums. Should the object be to hide some building, if brick or stone, plant *Ampelopsis Veitchii*; *Begonia radicans* and *radicans grandiflora* are useful to hide wooden fence back of subtropical borders.

AQUATIC PLANTS.

The next business was an essay on "Aquatic Plants," by Mr. BENJAMIN GREY, of Malden, Mass.

In the absence of the essayist, the paper was read by Mr. J. D. RAYNOLDS, of Chicago. It was as follows:—

This subject has been so little written up by cultivators of the present day, that I do not propose to attempt to treat it fully in a short paper such as this, but simply to touch upon points of interest and methods of cultivation which I hope may prove worthy of the attention of those now cultivating, or intending to cultivate, this beautiful class of plants, which deserves and no doubt will receive, in consideration of their fast increase in public favor, more attention in the near future from commercial growers.

Fifty years ago, a few of the leading English gardeners successfully grew Nymphæas and other aquatic plants; and their cultivation was quite a feature at some of the finest places of that time, notably that of the Duke of Devonshire, where originated that superb variety, *Devoniana*. The distribution of thousands of plants annually is a feature of the present day, and one which from present indications is certain to become much more important in the near future.

A few years ago many supposed that the flowers were artificially colored, and were subjected to some chemical treatment to produce the different shades: now the blooms are generally admired, and are sold by the leading flower stores as cut flowers, and are also used in designs and bunches on various occasions, thousands being used for these purposes.

From their historic associations the *Nymphaea* and *Nelumbium* have long been of much interest: *Nymphaea lotus* and *Nymphaea cœrulea* were both figured on Egyptian monuments, also *Nelumbium speciosum*, representations of which are found on the ruins of the ancient temples: from this evidence the Egyptians were undoubtedly acquainted with it, although the plant no longer abounds in an uncultivated state in Egypt, and is supposed to have been originally introduced from Asia, where it is still found plentifully in many parts.

Some confusion exists in regard to the name Lotus. According to the best authorities, *Nymphaea lotus* is probably the true Egyptian Lotus, or Lotus of the Nile of the ancients, and was held sacred to the god Isis, and was engraven on some of their very ancient coins: this, however, is not to be confounded with the Lotus of the Lotus-eaters, which was a tree — *Zizyphus Lotus* — found growing in Northern Africa, and bearing a sweet fruit. *Nelumbium speciosum* is the sacred Lotus or Water Bean of India; *Nymphaea cœrulea* is called the Blue Lotus of the Nile, but is also found at the Cape of Good Hope.

The introduction, by several of our large cities, of water plants into their public parks, has done much to educate the public taste for aquatics, and in these places of easy access they are admired by thousands.

The introduction of water affords one of the most effective features in landscape gardening, and when judiciously planted with aquatics it becomes doubly pleasing.

Many estates contain low outlying pieces of ground half neglected, which by the introduction of water gardening might be made the most attractive of spots. If no natural body of water exists, a cemented basin of any shape or extent might be made at a comparatively slight expense and planted with aquatics: the background and margins with *Camas*, *Cyperus*, *Caladiums*, *Arundo Donax*, *Callas*, *Irises*, and other moisture-loving plants, making a most pleasing and attractive garden. Any low piece of meadow with a clayey subsoil, which could be inundated, if broken up and well enriched, might be planted with hardy lilies, with *Villarsia nymphæoides*, *Aponogetons*, and other small growing aquatics for the shallow parts, and would make a most satisfactory lily garden. The *Nymphaeas* best suited for this purpose would be *odorata*, and varieties yellow and pink, *alba candidissimum*, chroma-

tella, fine yellow, and for a blue, *N. scutifolia* would probably prove hardy, except very far north. The *Nelumbiums* should also be given a chance, for while the tubers will not stand freezing, yet if planted so that the runners could bury below frost line, they will generally stand over. The *Calla* of the greenhouse will also winter out if planted deep enough, and would be very effective with its fine blooms. *Sagittarias*, *Nuphars*, *Orontium*, *Pontederia cordata*, *Sabbatia chloroides*, and a host of native aquatic and bog plants could be added from time to time, which would make a garden of much interest to botanists as well as to the mere lovers of the beautiful.

Many have no doubt hesitated about beginning the cultivation of water plants, under the impression that the possession of natural ponds or a large outlay of money in preparation was necessary. To such I would say that a few tubs set in a sunny, sheltered spot, with other plants about them, and planted with *Nelumbium* and tender *Nymphæas* would give an opportunity for their successful cultivation. The tropical kinds flower more freely than the hardy ones as a rule, and being in tubs might be removed to a warm cellar to winter. The compost best suited for growing them in tubs or pots is good strong loam and well-rotted stable manure, about equal parts; with the proper conditions at first supplied, their after requirements are few, and these readily suggest themselves; and in making additions to the collection, and with the opportunity afforded by experimenting in hybridization and the raising of new sorts, the cultivator when once launched will find a field of never-failing interest and enjoyment.

The essay was applauded. Discussion of the subject was invited, but no response was made.

MISCELLANEOUS.

The PRESIDENT explained that the essay on "Begonias," by Mr. JOHN CHAMBERS, of Toronto, which was to have been read at the present session, would be presented to-morrow; its author having been so busily engaged that he was obliged to ask for additional time.

Announcements were here made of the proposed meetings of the Hail Association and Protective Association in the evening, and also of the meetings of state delegations to elect State Vice-Presidents after the close of the morning session.

The regular session of the Society was then adjourned until Thursday morning.

HOSPITALITIES.

In the afternoon, the delegates and the ladies accompanying them were the guests of Alderman John Hallam, of the City Council of

Toronto, at his residence in Rosedale. In the spacious grounds surrounding the residence, in which the beauties of nature and of the landscape gardener's art were nicely blended, the visitors found much to admire. The band of the Royal Grenadiers contributed to the enjoyment of the occasion. Among the toasts which followed, at the close of the banquet, were "The Queen," "The Queen City," "The Society of American Florists," "Mine Host," "The Retiring Officers," etc., to which responses were made in brief and appropriate remarks. The entertainment concluded with the singing of the American and English national anthems.

FLORISTS' HAIL ASSOCIATION.

The annual meeting of the Florists' Hail Association convened at nine o'clock p. m.; President J. M. JORDAN, of St. Louis, Mo., in the Chair.

The Secretary, Mr. JOHN G. ESLER, of Saddle River, N. J., presented and read his report. It was as follows:—

The amount of glass insured on the first day of August, 1891, was 3,104,583 square feet, of which 1,384,205 square feet was single thick, and 1,720,378 square feet was double thick. An extra one-half insurance has been placed upon 18,210 square feet of single thick glass, and 56,251 square feet of double thick glass; an extra whole insurance has been taken upon 155,998 square feet of single thick glass, and 189,835 square feet of double thick glass.

The amount received during the year for membership fees was \$638.13; the whole amount of advanced assessments received for the year was \$960.37. The total amount received during the year for reinsurance of glass broken by hail was \$23.98.

On the 20th day of September, 1890, the second assessment was levied. One hundred and seventy-six members were assessed, and all except seventeen paid their assessments promptly; of the seventeen whose membership was cancelled, seven had either died or retired from business, leaving only ten whose membership was cancelled from causes unknown to the Secretary. The total amount received from this assessment was \$1,146.24. The amount of the membership fund in the hands of the Treasurer (after deducting \$16.25, which was returned to subscribers to the guarantee fund) is \$1,855.84. The total amount of the assessment fund in the hands of the Treasurer, after paying all losses and expenses for the past year, is \$1,170.43.

The following losses have been paid during the year: To J. J. Schumacher, of Sioux Falls, S. Dak., \$150 for 3,000 square feet of single thick glass; to S. D. Bradford, of Colorado Springs, Col., \$33.45 for 669 square feet of single thick glass; to B. Jacobs, of Canton, Ill.,

\$2.50 for 50 square feet of single thick glass; to Luther Armstrong, of Kirkwood, Mo., \$27 for 540 square feet of single thick glass; to Zeigler Sisters, of Junction City, Kan., \$5.88 for 117 1-2 square feet of single thick glass; to Margrave & Ward, of Hiawatha, Kan., \$2.80 for 56 square feet of single thick glass; to Henry Corbett, of College Hill, Ohio, \$25.30 for 6,506 square feet of single thick glass; to Corbett & Wilson, of College Hill, Ohio, \$471.95 for 9,439 square feet of single thick glass; to Herman Bücheler, of Oconomowoc, Wis., \$81.55 for 1,631 square feet of single thick glass; to Alfred Forder, of Cincinnati, Ohio, \$86 for 1,720 square feet of single thick glass; to Robert S. Brown & Son, of Kansas City, Mo., \$13.76 for 250 square feet of single thick and 18 square feet of double thick glass; to J. T. Bartlett, of Oconomowoc, Wis., \$184.87 for 2,641 square feet of double thick glass; to Mrs. J. E. Patton, of Trenton, Mo., \$14.40 for 288 square feet of single thick glass; to Herman Schlaeter, of Winton Place, Ohio, \$50.25 for 1,005 square feet of single thick glass, and to E. B. Campbell, of St. Cloud, Minn., \$5.81 for 116 2-9 square feet of single thick glass.

The percentage of loss for the past year has been one square foot of single thick glass for every 54 1-2 square feet of glass insured, and one square foot of double thick glass for every 647 square feet of glass insured. Hail-storms have occurred during the past year at Sioux Falls, S. Dak.; Colorado Springs, Col.; Canton, Ill.; Westwood, N. J.; Nyack, N. Y.; Abilene, Kan.; St. Louis, Mo.; Kirkwood, Mo.; Orlando, Fla.; Gainesville, Tex.; Lake Geneva, Wis.; Junction City, Kan.; Hiawatha, Kan.; Morseley, Mo.; Benton, Ill.; Kansas City, Mo.; Oconomowoc, Wis.; Brookfield, Mo.; Clyde, Ohio; Winton Place, Ohio; Cincinnati, Ohio; College Hill, Ohio; Hot Springs, S. Dak.; Hawthorne, N. J.; near Denver, Col.; Audubon County, Iowa; Trenton, Mo.; Dillerville, Pa.; Cherokee, Iowa; St. Cloud, Minn., and Ardock, N. Dak. All losses have been promptly paid and satisfactorily adjusted, and the prompt payment of the assessment levied was the final test of the stability of the *Florists' Hail Association*, and the positive proof that the members were satisfied that the business of the Association had been properly conducted by the Officers and Directors. If the success of the Association is to be gauged by the extent of the inquiries, the increase of membership will be large during the ensuing year. During the four years and three months of the existence of the Association, only one assessment has been levied, and of this record, I can assure you, the Officers and Directors are justly proud.

JOHN G. ESLER.

Secretary.

The report was ordered to be filed.

The Treasurer, Mr. J. C. VAUGHAN, of Chicago, presented his report, which was read and approved, as follows: —

Balance on hand, last report, Aug. 1, 1890	\$1,787.04	
Received from new applications	1,583.96	
Second assessment	1,146.24	
Interest on bonds, etc.	68.00	
Total	—————	\$4,585.24

Contra.

Paid J. G. Esler, Secretary, salary	\$100.00	
“ “ “ on applications	8.50	
Stationery for Secretary and Treasurer	69.25	
Expressage on same	1.35	
Exchange on local checks80	
Advertising	45.50	
Losses paid	1,433.57	
Total	—————	\$1,658.97

Cash Assets.

Lake View, \$500, 5 per cent School bond	\$495.00	
Chicago, \$500, 4 per cent “ “	513.07	
Cash on hand and in bank	1,918.20	
	—————	2,926.27
		—————
		\$4,585.24

At this point, an inquiry was made in regard to the respective merits of single and double thick glass in offering resistance to hail. Mrs. E. G. Wilson, of Cleveland, Ohio, stated, as the result of her experience, that when glass was loose, or had been poorly glazed, the difference between double and single thick was very slight. Where it was tight in the sash, and the glazing had been well done, the difference was considerable, the double thick not breaking so readily as the other. Of glass that had been properly fastened in the sash, about seventy-five per cent of the single and only twenty-five per cent of the double had been broken in a recent hail-storm.

President JORDAN submitted several amendments to the By-Laws, which had been proposed by the Directors, as follows: —

To amend Section 2, of Article V., so that it shall read: —

“ Whenever the beneficiary fund in the hands of the Treasurer shall have been reduced one per cent of fixed value of all risks, it shall be optional with the Officers and Directors to levy an assessment

on all who have been members of the Association more than six months prior to the date of levy." Adopted.

To amend Section 2, of Article IX., to read: —

“The Secretary shall receive \$250 per annum for his services.” Adopted.

To insert a new section (Section 3) in Article IX., to read: —

“The Treasurer shall receive \$50 per annum for his services.” Adopted.

A proposed amendment to strike out a commission allowed the Secretary was rejected.

On motion of Mr. H. A. SIEBRECHT, the Board of Directors for the previous year, with the addition of Mr. J. C. Rennison, of Sioux City, Iowa, were elected for the ensuing year.

After a brief discussion, participated in by Messrs. J. M. GASSER, H. A. SIEBRECHT, J. C. VAUGHAN, J. M. JORDAN, and Secretary ESLER, it was ordered, on motion of Mr. SIEBRECHT, that a committee be appointed to look into the matter of fire insurance with a view of connecting it, at some date, with that of hail insurance; the committee to report at the next annual meeting the different rates that can be obtained, the amount of loss by fire within a period of five years, the proportion of greenhouses heated with hot water and steam as compared with those heated by flues, etc.

This committee (as constituted to represent different sections) was announced as follows: Messrs. H. A. Siebrecht, of New York; J. T. Temple, of Iowa; E. A. Siedewitz, of Maryland; G. L. Parker, of Massachusetts; and A. Waldbart, of Missouri.

Adjourned.

FLORISTS' PROTECTIVE ASSOCIATION.

This valuable adjunct to the S. A. F. held its meeting in the Pavilion, on Wednesday, Aug. 19. It is under the control of a Board of Managers, composed of Messrs. J. C. Vaughan, Robert Craig, and J. D. Carmody. The work of the Association is carried on mainly by the Secretary and Treasurer, Mr. H. B. Beatty, of Oil City, Pa. The Society was organized to protect the commercial interests of the members, and is yearly becoming more and more valuable.

The Secretary's report showed a fair membership, and a balance in the treasury.

It was recommended that reports be made at least every two months.

Discussion took place as to regulating credits, but nothing special came of it, it being the sense of the meeting that every man has to regulate these matters for himself.

In future when a bad debt is paid up under pressure from the S. A. F., it will be noted in the Key.

Mr. SIEBRECHT asked whether it could not be arranged so that the F. P. A. could give advanced information as to the standing of a possible customer. To enable this to be carried into effect, Mr. C. H. JOOSTEN suggested an increase of dues, and Mr. D. B. LONG proposed that each member pay for his own inquiries.

A member complained that it was a common practice for beats to order cut flowers and other supplies sent by express, C. O. D., and then refuse to pay charges: in which case the express companies sell the goods to pay their charges, and a confederate of the "dead-beat" buys them at 25 per cent of the actual value. To this it was replied that if the shipper will guarantee the freight both ways, the "dead-beat" will be unable to work his little racket, and that if all shippers will follow this course the "dead-beat" will soon be "played out."

Members of the F. P. A. were earnestly urged to report all delinquents, and advised that this is the only way to rid the business of these leeches.

This Society should have the hearty support of every honest florist in the land. The yearly dues are but \$2.00, and united action would soon drive every "dead-beat" out of the trade.

THIRD DAY — MORNING.

President NORTON called the Convention to order at 10.45 o'clock A. M.

AWARDS ON EXHIBITS.

Secretary STEWART, among other announcements, read the reports received by him from the Committees on Awards on Exhibits. (These reports will be found in the Appendix.)

STATE VICE-PRESIDENTS FOR 1892.

The SECRETARY also announced, from the reports received by him, the election of State Vice-Presidents by various State delegations.

THE ORGANIZATION FOR 1892.

The PRESIDENT. The Society will now proceed to the election of its officers for the ensuing year; a ballot being first taken for President. For that office the nominees are Mr. James Dean, of Bay Ridge, N. Y., and Mr. William Scott, of Buffalo, N. Y.

Mr. William Scott here came forward and announced his declination. He said: During my absence from this hall, yesterday morning, some kind friends placed my name in nomination for the honorable position of President of this Society. I cordially appreciate their kind endeavors in my behalf, and also those of the many in the hall who received that nomination with approbation, as I am informed they did. I now improve this opportunity to add my own weak words to what has been said in commendation of a gentleman whom I know and who, I am confident, will be your next President. That gentleman, in point of ability, is not surpassed by any member, and his sterling worth of character is acknowledged by all. I think that this Society is to be congratulated upon having in the ranks of its membership a man such as Mr. James Dean, and I hope that his nomination will be ratified by a unanimous vote. [Great applause.]

On motion of Mr. J. H. DUNLOP, of Toronto, Can., the Secretary was instructed to deposit one ballot for Mr. James Dean as the unanimous choice of the Society for President.

The ballot was cast accordingly, and Mr. Dean's election announced.

The election of officers was then proceeded with as follows:—

On motion of F. KENNICOTT, of Chicago, the Secretary was instructed to cast the ballot of the Society for Mr. William R. Smith, of Washington, D. C., for the office of Vice-President; and the election of Mr. Smith was announced.

On motion, the ballot of the Society was also cast for Mr. Wm. J. Stewart, of Boston, Mass., for the office of Secretary; and the election of Mr. Stewart was announced.

On motion of Mr. T. H. FLYNN, of Newton, Mass., the ballot of the Society was deposited for Mr. Myron A. Hunt, of Terre Haute, Ind., for the office of Treasurer; and Mr. Hunt's election was announced.

President-elect DEAN, being called upon by Mr. Scott, was presented by the Chair, and expressed his acknowledgments of the honor conferred upon him. He assured the Society that all the ability he possessed, both as a presiding officer and as a horticulturist, would be given freely to the advancement of the Society's interests. He expressed his hearty thanks for the honor. [Applause.]

Vice-President-elect SMITH, in response to calls, also expressed his thanks for the consideration shown him in his election, which, he said, he attributed not to any merit of his own, but to the fact that Washington would be honored by the next meeting of the Society. He added that he would try to do the best he could to make the visit of the delegates to that city a pleasant one, and that he was sure they would be delighted with the opportunities for instruction and self-improvement to be found there. The spirit of democracy reigned there, and no

special class or exclusive ideas were tolerated. He explained that he made this latter remark in order that his hearers might better understand that, in coming to the National Capital, they would all be equal in the enjoyment of their rights and privileges. He concluded by expressing the hope that he would meet them all there next year. [Applause.]

CREDITS.

The programme of the morning session was proceeded with; the next order of business being an essay on "Credits" by Mr. H. B. BEATTY, of Oil City, Pa.

The essay was read by Mr. BEATTY, and was followed by general applause. It was as follows: —

In assigning to me a paper on "Credits," your Executive Committee has given me a subject that I greatly fear we will find is too vast for the limits of an essay. And when I received the notification that I was requested to write on the subject, I at once wrote Secretary Stewart asking him if the committee had not indicated what phase of the question they wished me to write on. I received a very prompt reply saying they had not, and so I was left to struggle, as best I could, with the subject.

In what I have to say to-day I will confine myself entirely to some points which I think all business men should ascertain before extending credit to applicants, and leave all theories in regard to the benefits and abuses of the credit system for the question box.

That the subject of credits is a very important one will be admitted by all, and that it seems to be one that requires more attention and thought than it receives is fully attested by the daily list of business failures.

It is a subject of special importance to the grower of cut flowers and plants; for owing to the perishable character of his commodity, he is specially liable to the machinations of the rascal who early realized that, as an immediate sale of the grower's stock must be made or the stock become a total loss, the buyer might, and often does, escape very serious scrutiny as to his ability to pay for what he buys. Then, again, usually the stock sold to retail florists is perishable, and consequently if not sold at once is a dead loss to the retailer; and also there is nothing the grower or jobber can attach in case of a failure on the part of the retail man to meet his obligations, except a small stock of baskets, designs, and fixtures, and therefore the grower or jobber should be even more careful in regard to credits than the ordinary trader is or should be.

But whom to trust and whom not to is the all-important question, and what rules, if any, can be laid down for our guidance? No cast-iron rules can be made, as some parties, under precisely the same circumstances, could be safely trusted, while it would be financial suicide to trust others.

I think it desirable and necessary to get reports on all applicants for credit, and to especially get and scrutinize closely all information obtainable on the following points: —

Locality.

The location of the business need not interest us so much as it might other branches of trade, for most of the buyers of our products and supplies are located in the larger cities; but I think it well for us to look somewhat as to locality, especially if the new applicant is just starting in business.

Look with disfavor on any order you may receive from a point that in the usual course of trade could be filled to better advantage from some nearer place. Nine times out of ten you will find the applicant has exhausted his credit nearer home, and is looking for pastures new and fresh. Of course if you are dealing in a specialty, or something none other has, this would not apply.

Competition.

Look well to the amount of competition your creditor has to contend against, for on that depends to a great extent his ability to pay you. If he has not much competition, it stands that he will in all probability be able to meet his obligations promptly; but if the business in his particular locality is greatly overdone, then look closely to your accounts, for, while we say "competition is the life of trade," it, if overdone, cannot be said to be the life of credits.

Age.

I think a would-be creditor's age should be carefully considered, for the following reasons: —

A very young man's efforts are more than likely to be misdirected, and if he makes a failure he is more than likely to "give up the ship" and drift into something else and be lost sight of; on the other hand, an old man has not the energy to combat his younger competitors, and especially so if he should be starting in a new line of business.

If an old man has been raised in the business, he stands a very good chance of making a success of it; but I would advise, in considering credits, that a middle-aged man of experience, other things being equal, would be the safest to trust. If an old man fails, there is not

much chance of his ever getting on his feet again; while with the middle aged there is always a fair chance of his making and paying any old accounts that may be standing over him.

Experience.

In every business there are ups and downs that experience alone teaches us how to meet, and usually when we may expect them, and also to be in some way prepared to meet and conquer them when they do come.

The inexperienced man cannot foresee them, and is very apt when they do come to magnify their import and terrors, and usually fails where an experienced man can safely tide over the "bad times" and knows how to husband his resources in "good times" and so be prepared for the "rainy day" which he knows is sure to come. It is scarcely necessary to say that a man's experience should be carefully considered in extending credit.

Character and Habits.

This is the most important point on which we can get information; for ability, experience, or even capital would hardly compensate for the lack of good character. In the case of the average capital of a man in business (\$1,000 to \$5,000) it is the man's honor more than his capital that we have to rely on for our payment, and so too much stress cannot be laid on the point of character and habits. Look to that part of your report closely.

Married or Single.

It may seem a strange question to ask of an applicant for credit whether he is married or single, but we all know that if a man comes to us for employment about the first question we will ask him is, "Are you married?" and the married man will usually get the preference, for a number of reasons, among which are these:—

Having a family we look on him as more stable, more jealous of his honor, as any action reflecting on his honor or integrity injures his loved ones. Then again he is removed from some temptations that a single man has, and also having others beside himself to provide for, he will be more diligent and attentive to business.

Honesty.

"Honesty is the best policy," has been written over and over again by us all, and sounded into the ears of the rising generation from time immemorial, but still some people will not be honest. As it is almost impossible to protect yourself against a dishonest man, if your applicant

for credit cannot show a clean record as to honesty, have nothing to do with him.

Economy.

We all know that people will buy more if it can be had on credit than if they have to pay cash for it; and as a dealer not only has all his own money at hand but also his merchandise bought on credit, to do with as he pleases, it behooves us to know whether an applicant for credit is economical or not, as on that point depends to a great extent his ultimate success and ability to pay his bills.

If you find his personal and business habits expensive, go slow in extending him credit.

Capital.

This might seem to be the first consideration in considering an applicant for credit, but while very important it is not the most so.

You will find as business is now conducted that no house confines its business to its cash capital, but uses instead confidence, and confidence of a community or business associates is frequently almost as good as money. If a man by some dishonest or strange action has forfeited the confidence of the community in which he does business, a greater part of his resources are crippled, and his chances for success are very greatly lessened.

The limits of this paper will only permit me to briefly mention other points that should be carefully considered in extending credit.

Business education; old record, if any; look carefully to that, and also to a man's antecedents; assets, such as stock and personal property, accounts and bills receivable, real estate, liabilities, volume of business, punctuality, chattel mortgages and other liens, insurance, limit of credit.

The PRESIDENT called attention to the interesting and valuable character of the paper just read, and suggested that a discussion of some of its salient points would prove beneficial.

Mr. R. J. MENDENHALL, of Minneapolis. I think the paper covers the ground thoroughly all the way through. I do not think it needs any discussion. I suggest that the author ought to have a vote of thanks.

Mr. J. A. PETERSON, of Cincinnati, Ohio. I move that a vote of thanks be extended to Mr. Beatty for his valuable and interesting paper.

The motion was adopted unanimously, and the PRESIDENT tendered the thanks of the Convention accordingly.

STORE TRADE.

The PRESIDENT announced, as the next item of business, an essay on "Store Trade," written by Mr. WM. H. LONG, of Boston. He explained that Mr. Long was unable to be present, and that, in his absence, the paper would be read by Mr. L. H. FOSTER, of Dorchester, Mass.

The essay, which was then read, elicited many manifestations of appreciation, and was followed by applause. It was as follows:—

As in most business enterprises the best results have been achieved through co-operation, there is no room for doubting the benefits to be derived by the votaries of fair Flora in the pursuit of the same course. Since the organization of the Society of American Florists much has been accomplished in the way of healing of differences that existed, and would still exist in the trade were it not for the breaking down of the barrier of jealousy that confronted the interest of many who now see a clearer way to success. The manufacturer, the jobber, and the trader profit by a close intercourse and understanding regarding their business relations, and there is no reason why the grower, the consignee, and the retail florist should not be equally successful through the system of co-operation.

An experience of a quarter of a century has furnished me with material sufficient to draw on, and acquaint my younger friends with a brief survey of the retail flower trade during that period.

There are many present who are perhaps not aware of the fact that twenty years ago the great city of New York depended on the city of Boston for its supply of long-stemmed roses, no flower being cut in the neighborhood of the former place with stems more than two inches in length. What changes since then! No place in the country with a population of 5,000 is without its florist. While it is true we have made such wondrous strides in the development of our art, it is equally true we have allowed our opportunities for pecuniary profit to be materially abridged. When the retail flower trade received its first impetus, from 1865 to 1870, flowers were not plenty, but the retailer had an equal chance with his competitor. With much regret it must be admitted that such is not the case to-day, for while the supply has increased one hundred-fold, we find an unwarranted discrimination on the part of a few commission men who supply their more fortunate customers with the best, and the less extensive purchaser—even though prompt in his payments—with what may be left. As most of the desirable stock is consigned to wholesalers in large cities, from whom the shopkeeper must purchase or go without material for his business, the unfortunate position of the man who purchases lightly must be

apparent. Fortunately, however, the bulk of consigned goods is in the hands of honest and intelligent men, as, were they all as those referred to, it would be simply a matter of the rich being made richer and the poor poorer.

While on this subject, your attention must be called to another matter of serious importance, one that threatens the retail florist store trade especially with sad consequences. I refer to the unhappy method adopted by some growers and wholesalers of furnishing street Arabs with flowers at a price so ruinously low as to enable them to dispose of their goods for one half, and not infrequently one quarter the price demanded of the retailer.

When the nuisance was less prevalent than at present, the shopkeeper could impress some customers, who inquired "how the boys on the street could sell for so much less than the store," with the belief that the flowers were stale. Within the past few years we find a different state of affairs, for the very people who a short time ago refused to patronize these pests are now using their goods and find they are as fresh as those purchased in the stores.

Were these vendors required to pay the same prices that the retailer is charged, there would be no cause for complaint, as every living creature is allowed the undeniable right to earn an honest subsistence, but when the retailer is forced to pay from two to four times as much as the street pedler, he must, as a consequence, suffer somewhat in his cut flower sales. But the great trouble is not alone the dispensing to them, but by them. There is no doubt that an article may be made popular by being brought in contact with a community; but when that contact is made through the agency of the most depraved and vicious imps to be found in the slums of large cities, and who infest the fashionable thoroughfares with their forbidding presence, thrusting bunches of flowers in the faces of ladies, it is time the florist looked well to his laurels, or our calling must soon be brought into contempt. The question might be asked, "What shall we do with our overstock?" That question I am not prepared to answer just now, but through the agency of this very association means might be adopted for the solution of the abstruse problem. Suffice it to say that all stock in an open market not purchased at a fixed price had better be destroyed than sacrificed to street vendors, who stop the sales that would otherwise go to a reputable shopkeeper, the depletion of whose stock signifies the heavier purchasing from the wholesaler at profitable rates, and the latter's opportunity for making better returns to his consignor, than would result from the sacrifice offerings of the street vender.

As it is quite well to leave well enough alone, I will not take your time by repeating the pleasant memories in connection with store trade,

or the tremendous strides made in the advancement of our profession, as they are well understood, but will confine myself to weak spots, in the hope that errors may be rectified and the toiler adequately compensated for his labor.

By a close observation I have discovered that a majority of the young men and boys in the employ of retail florists are far below the standard in primary education, not being able to convey their thoughts to paper in the simple matter of taking an order from a customer. Mistakes of a serious nature are often the result of this misfortune. Frequently in an effort to decipher these hieroglyphs we find ourselves booked for an order quite at variance with the purchaser's intention. This is to be deplored, as most of the young people referred to are bright, intelligent lads, quite up to the times, many possessing the material for good business men if only properly cared for. But how are these boys, most of whom through circumstances have been forced to work while at a tender age, to secure the prize they deserve in the way of but a little education, if they are kept at their posts till very late night after night? Without doubt man's avarice is his greatest curse. How many have been brought low through their love of gain, sacrificing health, pleasure, and happiness for an extra dollar they cannot use, but which must be left to others to squander! In the hope of making one sale more for the day, the avaricious man keeps his place open a single hour later than his neighbor; his competitor discovers this, and remains at business still later, until in the course of time, as is noticeable in New York, the greater number of stores are kept open till very late at night. The folly of this measure must be apparent to all thinking men. No doubt the late-hour shopkeeper, if asked why he keeps his place of business open so long, will inform you that he is justified in attending to customers as long as they come in. To this I will answer that during the past twenty-five years I have had occasion, from time to time, to remain at my place of business all night, preparing orders for the following day, and for every hour of the night I have had customers. Reasoning from this standpoint, the tradesman to whom I refer is justified in keeping his place of business open all and every night. Until within a few years the dry-goods man would have considered himself on the brink of financial ruin if told he should close his place at six o'clock in the evening; but when the clerks organized and inaugurated the early closing movement, the merchant discovered that he could do as much business as formerly in fewer hours, and the only loss incurred fell on the gas monopoly, who were no longer required to furnish their long bills for gaslight.

As the dry-goods man found he could do as well in fewer hours, so can the retail florist. I have yet to be convinced that the flower trade

in any part of this country cannot be finished before seven o'clock every evening, and the store closed on Sunday.

If an employer would but for a moment consider the situation, and give his boys a chance to take advantage of the opportunity afforded by our night schools in securing an education, he would not only benefit himself, but the boy he expects in time to take the reins of business and manage successfully the affairs of a trade he has worked hard to establish, and would no doubt be a pleasure for him to see perpetuated.

Discussion of the subject was invited.

Mr. D. B. LONG, of Buffalo. The essayist presents several notable points worthy of our attention. With respect to the education of young men who are learning the business, I have to say that I think the florist trade generally of this country is standing in its own light. As we are now running our business, there is no opportunity for these young men to go to school or to make any progress in their education. I have realized this in my experience with employees who came to me as boys. I have tried, in some instances, to induce those boys to quit the business for six months or a year and attend school, but for some reason their parents did not encourage them to do so. The result, in one case, was that a good boy had to leave me and go to some other employment, one in which he could earn more money than I could afford to pay him, and, I suppose, have better opportunities for attending school.

Another consideration is that, in some lines of business, an education is not so absolutely essential, on the part of beginners, as it is in our business. It is proper, therefore, that we should seek to apply a remedy for the condition of things now existing. I think it is the duty of the florist clubs (and, by the way, it occurs to me that that is peculiarly one mission of a florist club) to inaugurate this movement for early closing, and for giving the boys a chance of attending night schools. In all our large cities there are night schools, and our young learners should be enabled to avail themselves of the facilities those schools afford.

It seems to me that the co-operation of the trade generally, in this country, in the matter of early closing, would prove beneficial to us in various ways. If we take the same stand that the dry-goods men took, the effect of it would be to elevate our business standing, and give it greater dignity in the eyes of the general public. We would then confine business within certain hours; and if, in addition to this, we are able, by closer association, to get the handling of these goods ourselves, instead of permitting the street vendors to handle them, I think that great good would be accomplished by us for this generation and for the next.

MR. GEO. V. SMITH, of Baltimore. The matter under discussion is one of vital concern to us in Baltimore, and it seems to me it is one of peculiar difficulty. There we have large markets, which do us as much harm as the street venders. The storekeeper is obliged to pay the wholesale prices, but the market-men are often able to get their stock of flowers at one half or one fourth of the wholesale price to the regular retailer, because when they take their goods to the markets the growers sell them for what they can get for them. This practice has been referred to in the "Florists' Exchange" and other papers, and it has been argued that the public got the benefit of the cheaper price, while the growers received that much more money. But, I ask, how can the stores keep up prices or insist upon a reasonable rate for what they have to sell, if the growers dispose of their stock to the markets at prices far below those which they are paid by the storekeepers? It is certainly a manifest injury to the retailer to have a boy in front of his store and on his pavement, selling for five cents a bouquet which is exactly like bouquets for which that retailer has paid treble or quadruple that sum. I speak now of what I have myself seen in Baltimore. If the storekeeper has paid a good price per foot for the ground on which his store is built, and is paying perhaps \$150 per year in taxes, he feels keenly the wrong done him by this unfair competition. I indorse heartily the suggestion that we must have mutuality of interest between the grower and the storekeeper, and that the grower should help the storekeeper by maintaining a uniform price for his flowers. This must be done if the retailer is to maintain his trade, and give his boys their evenings. Unless both join hands, what are we going to do?

In regard to what is suggested about the educating of boys employed in the stores, I have only to say that that also is a matter which seems to depend upon mutual co-operation. A boy in my employ, who had not received any of the advantages of an education, was induced by me to join the Young Men's Christian Association, so that he might have the benefit of the good night schools of that Association. To enable him to get away from the store at night, I hired an additional boy. Subsequently I found that, instead of going to school, the boy preferred to spend his evenings in company of his own choosing. I have now a very good and useful boy, who has been with me for seven years; and it will not be argued that I should discharge him because he will not go to school. I close my store on Sundays, but keep open late at night through the week; and I fail to see why I should not keep open at night when competition requires that I should, and flowers can be sold at night; but I would be very glad if the growers would help us so that we might be able to avoid keeping open at night, and thus give our boys such opportunities for self-improvement as may be acquired by them.

Mr. C. B. WHITNALL, of Milwaukee, Wis. In the interesting essay to which we have just listened, the most important point touched on, I think, is the relation between the grower, the commission man, and the fakir. It seems to me that there should be some means devised by which the prices would be so regulated daily that the commission man could dispose of the whole stock to the established retailer; thus giving the public the advantage of the lower price in time of plenty, and keeping the flowers out of the fakirs' hands entirely.

Mrs. E. G. WILSON, of Cleveland, O. Mr. President, I am much interested in this question of the education of employees, and I would simply mention that, last winter, I tried an experiment which has proved to be one of great interest and value. We organized among our ladies and gentlemen a class that met weekly and took up horticultural subjects. In one way or another, for the last two or three years, our employees have become thoroughly interested in horticulture. By this means I have had more thorough and hearty support from them than possibly could have been secured in other directions. In fact, the class has been so successful that one or two of my employees have gone to college and have become quite proficient in their line of study. I think we would accomplish good results by organizing, among our employees, a class or something of that kind, and also, as far as possible, night schools. The great objection to night schools such as are here spoken of I have found is this, that every florist has orders that have to be filled at night, and consequently this breaks in upon any regulation with respect to such schools.

The discussion here terminated.

A HORTICULTURAL CONGRESS AT THE WORLD'S FAIR.

Mr. E. G. HILL, of Richmond, Ind., being called upon by the Chair, presented and read a report in relation to the holding, during the World's Fair, of a Horticultural Congress. He prefaced the reading of the report with a statement that the S. A. F. had been invited to co-operate with other horticultural interests in this movement, and that a committee had been appointed by the Executive Board of the S. A. F. when in session at Toronto. After considerable correspondence and discussion, the following had been arrived at: —

Your committee appointed to consider the practicability of uniting in the call for a Horticultural Congress, to be held during the World's Fair or Columbian Exposition, beg leave to report, that, in their opinion, the holding of such a Congress, embracing the different branches of horticulture, would be wise and beneficial to horticultural interests in a high degree. Your committee believe that the holding of such a meeting would add dignity and lustre to our own branch of horticulture,

and would prove to the world the importance and value of horticulture in its highest and best sense.

We further recommend that the Secretary of this Society be instructed to correspond and act in unison with the projectors of this important movement.

(Signed) E. G. HILL.
 JAMES DEAN.
 H. A. SIEBRECHT.
 W. R. SMITH.

On motion of Mr. J. M. JORDAN, of St. Louis, the report of the committee was accepted.

The PRESIDENT inquired whether it was contemplated to take any action on the recommendations contained in the report.

Mr. H. A. SIEBRECHT. Mr. President, I move that a committee be appointed to act, in conjunction with the Secretary of the S. A. F., in forming a plan by which the correspondence with societies of foreign countries and with horticultural interests in this country may be conducted; and that such committee shall take whatever measures may be necessary to bring this movement to the position in which we would like to see it. The committee can report a year from now as to what they have accomplished and what can further be done.

Mr. JOHN THORPE. It would seem to me that if anything should be done, the committee that has already been appointed to attend to the matter should be intrusted with the work. The committee has not been discharged.

Mr. E. G. HILL. I beg leave to dissent from the view expressed by Mr. Thorpe. Our committee has taken the initiative in the movement, and, as the work necessitates a great deal of correspondence, another committee should be appointed and the chairman of it given a private secretary, who shall be paid for his services. I do not suppose that our Secretary, Mr. Stewart, is really hankering for the job [meritment], but I think that some special provision for it should be made.

Mr. J. C. VAUGHAN. I, for one, believe it to be indispensable that the present committee should be continued in the same way as heretofore, or, if this is not feasible, that it should be continued with a limited membership. It will be impossible, in the brief space of time that we remain in Toronto, for that committee to turn over to another committee, in a careful and intelligent way, the matters they have had in charge, as these are matters requiring consultation and explanation. That committee being familiar with the work, I deem it indispensable that they should be continued for at least a year. You must remember that but a year and a half or two years remain before the great Fair

will be opened. It is well known to the Convention that this committee was carefully selected and is composed of representative men who have dealings with foreign countries, and who are in a position to make a strong personal appeal to those who are shipping stock to this country. It is not the part of wisdom, in this matter, for us to depend upon the appeal which comes from the World's Fair management at Chicago; but it is the appeal that comes from personal and business interests, through the avenues of trade, upon which we should mainly rely. We want to have the benefit of both those appeals in undertaking to secure a creditable representation of our industry. I therefore strongly support the continuance of the committee for the coming year, and if Mr. Thorpe's suggestion is put in the form of a motion, I heartily second it.

MR. J. M. JORDAN. Mr. President, it might be advisable to make additions to the committee, though I do not know the names of the members of it. Necessarily, however, the committee continues in existence until discharged or their work is completed, and therefore it will be continued without a specific motion to that effect. They have merely made a report, which will be filed as a matter of record.

MR. ERNST ASMUS, of West Hoboken, N. J., in reply to inquiries, said: The membership of the committee as it now stands is as follows: Messrs. E. G. Hill, chairman; W. F. Dreer, W. A. Manda, James Dean, J. T. Temple, W. R. Smith, E. Asmus, H. H. Berger, and W. H. Chadwick.

MR. J. M. JORDAN. Mr. President, I think that that is a good committee. Let us accept their report as a report of progress in their work, and leave them to proceed with and complete the task that has been assigned them.

MR. E. G. HILL. Well, Mr. President, I positively must refuse to continue to act as chairman of that committee. I could not afford to give the time that is required to be given in attending to the correspondence. I have not sufficient time at my disposal for that purpose. I am perfectly willing to serve on the committee if relieved from the duties of chairman.

THE PRESIDENT. The committee may re-form and select its own chairman.

MR. J. M. JORDAN. Certainly it would be within their province to choose another chairman.

THE PRESIDENT. The Chair does not know that any formal action by the Society is necessary in regard to this matter. The committee has reported, but it is not discharged, and therefore it will continue in existence.

WINTER-FLOWERING PLANTS.

The PRESIDENT then announced, as the next business, an essay on "Winter-Flowering Plants Suitable for Decorations," by Mr. W. H. TAPLIN, of Holmesburg, Pa.

The essay, in the absence of its author, was read by Mr. F. L. HARRIS, of Boston, Mass., and was followed by applause. It was as follows:—

This subject is one of much importance to a majority of the members of our Society, and it is therefore with some degree of hesitancy that I have attempted its brief consideration, and also from the fact that I have been in some doubt as to the proper limitations of such a paper.

The conclusion arrived at, however, is that it would be advisable to divide the subject into three heads: 1. Plants that bloom naturally during the winter season. 2. Plants forced into flower during the winter. 3. Bulbous plants suitable for decorations.

The first section, that of plants whose natural season of flowering falls in the winter, probably comprises the shortest list: for while there are many winter-flowering plants, yet all are not adapted for the purpose in view, there being, in the opinion of the writer, some special qualifications necessary in order to render a plant valuable for this particular use.

Some of these qualifications may be briefly stated as follows: Shapely or graceful form, decided color, moderate rapidity of growth, and last, but certainly not least, the quality of being easy to grow under ordinary conditions, for on the latter attribute largely depends the popularity of most plants used for decorating.

Among the plants of the first section, the Poinsettias deserve a more prominent place than has been accorded them of late years, for where vivid coloring is wanted they meet all requirements, and as the bracts of these plants keep in good condition for several weeks there need be but little loss from waste of flowers.

The original variety, *P. pulcherrima*, is perhaps the most satisfactory for all purposes, though the double form of this is also extremely showy, and keeps well too, providing that water is not allowed to lodge among the bracts.

P. pulcherrima major is also pretty, the color being crimson rather than the scarlet of the type, and either of these to become useful for decorations should be stocky, well-grown young plants from summer cuttings of soft wood, and which may be made to produce one large head of bloom on a well-furnished plant in a five or six inch pot.

Plumbago rosea coccinea is another brilliantly colored winter-flowering plant, the terminal spikes of which are clothed with bright red flowers about one inch in diameter. Of course this is not by any means new, but may possibly find a more extended opening in the future than it has in the past, being easy to propagate and flowering with the least encouragement.

The *Cinerarias*, too, have been wonderfully improved of late years, and not only in size and color, but also in methods of cultivation, the chief requisites of the latter appearing to be a cool, moist atmosphere and generous treatment in the matter of fertilizers. And in order to keep up a succession of these useful plants, it is well to make more than one sowing of the seed, the latter to be of the best strain that can be secured.

Yellow flowers are somewhat scarce among the winter-flowering plants (with the exception of *Chrysanthemums*), and an old-fashioned though pretty subject of this popular color is *Reinwardtia trigyna*, perhaps more readily recognized under its former name of *Linum trigynum*, and which may be grown into bushy little plants in five or six inch pots with very little trouble.

Erica hycmalis, now frequently seen during the season in the larger cities, is probably the most useful of its family for our purpose, being of free growth when given reasonable care, while its long sprays of rosy tinted flowers give an additional charm to many a tasty decoration.

Libonia floribunda still finds a place among useful plants, for although its red and yellow flowers are small, they are produced in such profusion as to be quite showy, and the plant is also capable of enduring much neglect without great injury.

It hardly seems necessary to remind the members of this Society that *Chrysanthemums* should be included among our decorative plants, this fact being already well proved; and the only suggestion offered in this connection is that none but distinct colors be grown for this purpose, and only sorts enough to insure a proper succession of bloom.

Pot plants of *Carnations*, *Bouvardias*, *Roses*, some of the *Begonias* and *Eupatoriums* and other well-known plants will naturally suggest themselves to the decorating florist, and therefore do not call for any extended notice in the present instance.

Primula sinensis in variety comprises a useful group for winter work, not the least important member of this interesting family being the double white variety; and as the single-flowered forms found in some good strains vary from white to dark red, and also include all shades from pale lilac to almost blue, there is sufficient range of color to satisfy the most fastidious.

Coming now to our second heading, that of "Plants Forced into Flower" for decorative use, we find a considerable variety to choose from, though largely found among familiar species. Very near to the head of the list, if not fully occupying that enviable position, are many of the splendid varieties now found among the Indian Azaleas, the merits of which have often been discussed before. It may be noted, however, that *Deutsche Perle*, *Fielder's White*, and *Borsig* are among the most satisfactory whites, while *Md. Vander Cruyssen*, *Eugene Mazel*, *Vervaeneana*, and *Bernhard Andreas* are fully able to sustain the reputation of the colored varieties.

Some of the *Rhododendrons* also will bear further investigation regarding their utility as plants for winter decorations, there being no great difficulty in forcing some of the hardy varieties, while some of the hybrids produced among the East Indian species bloom at almost all seasons. Among the latter there are many notably beautiful varieties, and if they can be reproduced in quantity at a reasonable cost, they will doubtless find a ready market.

A large number of hardy shrubs are now included in the forcing list, prominent among which are the *Lilacs*, these being classed with the most popular for two reasons,—their beauty, and the ease with which they may be forced. *Pyrus Japonica* has also proved easy to force into flower, though the flowers so grown are much paler in tint than those naturally produced, and some of the shrubby *Spiraeas* are satisfactory under similar treatment, one notable instance being *S. Thunbergii*, which produces its pure white flowers with as much freedom as does *Deutzia gracilis*.

The *Hydrangeas* must not be omitted, there having been several handsome varieties added to the list within recent years, though most of these varieties appear more satisfactory toward spring.

The method often adopted of growing on summer-rooted cuttings of *Hydrangeas* into nice little plants in four or five inch pots, and bearing one head of bloom, gives some useful stuff for winter and spring use.

Has the *Crape Myrtle* (*Lagerstromia Indica*) been thoroughly tested for winter forcing? If not, it may be worth trying, for either the white or pink variety would be an admirable addition to the stock of decorative plants, providing they were well flowered.

Acacia pubescens and several other species of the same genus may be used to supply pale yellow flowers, and the well-known gracefulness of these plants should secure them a place anyway, while *Cytisus canariensis* and *C. racemosus* furnish a deeper shade of the same color, and are really invaluable for decorating.

Having now arrived at our third heading, "Bulbous Plants for Winter Decorations," one of the first to suggest itself for mention is

Cyclamen Persicum, a plant that seems to be gradually coming to the front again after some years of comparative neglect.

Of course Cyclamens have been much improved by careful fertilization, and are consequently more valuable now to the florist; and in addition there have been some changes made in methods of cultivation, the most approved now being the system of growing on the plants from the seed to flowering size without any period of rest or drying-off process, the whole operation being completed in from fifteen to eighteen months.

It should also be remembered that "*the best is the cheapest*" as regards Cyclamen seed, and by starting with a good strain and then carefully selecting some of the best plants for seed bearing, it is possible that the stock may be still more improved in future seasons. Liliuns Harrisii and longiflorum should not be forgotten, as with proper handling these may be had in bloom in successive lots all through the winter and spring. Some of the Amaryllises also force well, and their showy flowers appear to advantage among a mass of foliage plants.

A selection of Dutch bulbs is one of the essentials for the complete equipment of the decorating florist, among the most useful being Tulips, Daffodils and other Narcissi, and Hyacinths, and one point worthy of remembrance in choosing Tulips and Hyacinths is to have none but clear, distinct shades, these being naturally the most satisfactory when endeavoring to form a combination of color in a decoration.

In conclusion, it will be understood that *all* the plants here referred to are not claimed to be profitable in *all* localities, the question of suitability rather than profit having been the one under consideration, though in a majority of the examples cited the latter point has also been remembered.

Discussion of the paper was invited, but no response was made.

COMMITTEE ON FINAL RESOLUTIONS.

The PRESIDENT here suggested the propriety of the appointment of a Committee on Final Resolutions, and (after being authorized to make the appointments) announced that he had constituted the committee as follows: Messrs. J. D. Reynolds, R. J. Mendenhall, Wm. Scott, J. D. Carmody, and Patrick J. O'Mara.

COMMISSIONER OF HORTICULTURE AT THE WORLD'S FAIR.

Mr. E. G. HILL. I move that the Chair appoint a committee to report, at the evening session, the name of a suitable person to be recommended to the Director General of the World's Columbian Exposition for the important position of Commissioner of Horticulture.

I understand that, on the day before yesterday, at which time I was not present, the Society recommended Mr. John Thorpe for appointment as Chief of the Floricultural Department. We have information that if a move of the kind now suggested be undertaken at this time, it may be productive of important results, therefore I have made this motion. I think that perhaps a committee of eight or nine, embracing representatives of the different parts of the country, would be preferable.

A vote being taken, the motion of Mr. Hill was adopted, without objection.

Subsequently, the PRESIDENT announced that the committee had been constituted as follows: Messrs. Craig, Vaughan, Hunt, Falconer, Siebrecht, Jordan, Hallock, Temple, and Lonsdale.

Mr. M. A. Hunt, upon his own request, was excused from service on the committee, as he was obliged to retire, and the name of Mr. J. D. Carmody was substituted.

RECOGNITION OF MEMBERS.

MR. C. WM. TURNLEY, of Haddonfield, N. J. Mr. President, I wish to offer a resolution to facilitate the recognition of our members by each other. As illustrating the necessity for an arrangement such as I suggest, I would mention that a gentleman whom I met at the entrance asked me if I had seen our worthy ex-President, Mr. E. G. Hill. I answered that I had seen and conversed with him and would introduce the gentleman to him. I have been unable to do so, however, because I am ignorant of the name of the gentleman who accosted me, but I take this opportunity of referring him to Mr. Hill, who is now on the platform. I suggest that what I propose would probably enable our Secretary to avoid considerable difficulty. The resolution is as follows:—

Whereas, The members of our Society from the different States have great difficulty in readily recognizing each other as belonging to their respective States; therefore, be it

Resolved, That a suitable regulation numerical badge or sign be worn by each member; the number to represent the name of the State to which said member belongs; the number also to correspond with the date of admission of State into the United States; said number to be supplied by the Society.

I think this will afford a simple means by which we may recognize each other either during our attendance at the sessions or upon the thoroughfares, and that it will be a help to the Secretary in enabling him to recognize personally the delegates from the different States.

Mr. H. B. BEATTY moved that the resolution be referred to the Executive Board.

Mr. H. A. SIEBRECHT. Before the vote is taken I would say that, year after year, this proposition has been referred to the Executive Committee, and nothing has been done. I, for one, am in perfect accord with what is proposed by that resolution, and deem it to be really necessary. Having attended our Conventions from the first, I have often been obliged, when introducing members, to ask them, "What is your name?" and "Who are you?" It is impossible, in a large assemblage like that which attends our Convention, for one to remember the names of all those whom he has met there before. The simple display of a number would not be out of place, and I hope that some such arrangement will be made.

Mr. J. L. DILLON, of Bloomsburg, Pa. I rise to second the resolution. I have attended every Convention of this Society, and have gone home, year after year, to find that a number of persons whom I wished to meet at the Convention were present and that I had failed to recognize them. I hope that a committee will be appointed to attend to the matter.

Mr. TURNLEY. The resolution provides only for members from the United States, but I will gladly modify it to include our Canadian friends or any others connected with the Society.

Secretary STEWART. Our friend Mr. Siebrecht states that this or a similar proposition has been referred to the Executive Committee year after year, and that "nothing has been done." Having attended all the meetings of the Executive Committee, I know that a great deal has been done. In fact, more time has been spent over this subject than over anything else that has come before the Executive Committee; and that committee, although composed in successive years of different gentlemen, after giving it faithful consideration, has always been unanimous in the conclusion that the proposition presented for their consideration was an impracticable one. It was considered by them one year ago, two years ago, and also on previous occasions. Indeed, a plan somewhat similar to that now proposed by Mr. Turnley was once recommended by the Executive Committee as a possible help in identifying delegates.

The scheme that was recommended to the consideration of the Executive Committee two or three years ago, and which Mr. Siebrecht apparently confounds with the one now suggested, was a very different thing. That scheme was to number every delegate. But this, instead of lessening the Secretary's work, as has been suggested, would have multiplied the labors of that officer indefinitely. No one man could have done, in time to make it effective, what was proposed to be done.

The Executive Committee endeavored to simplify the scheme, so that each member, or at least each chairman of a State delegation, should have a badge of a distinguishing color, with the name of the State printed on it. At once the advocates of the former plan came and said that the Executive Committee had put into effect a scheme that was worse than useless. In one respect, however, it seems to me that the plan now suggested is still worse. The gentleman (Mr. Turnley) proposes the numbering of the States. But why number them? If a man can read a number, he can read the name of a State; referring to a number to find out the name of a State seems to me to be unnecessarily roundabout, and for that reason inferior to the plan formerly proposed by the Executive Committee.

Mr. CHARLES P. ANDERSON, of Flushing, N. Y. It is quite apparent that there should be some better method by which strangers from the different States may become better known to each other. Whatever plan is devised should, I think, be recommended by the Executive Committee, in whose hands the matter may properly be left. With the assistance of our good friends in Canada, I think that a plan can be perfected. In my judgment, it is better to let it rest in the hands of the Executive Committee, so that they may continue their good work.

Mr. H. A. SIEBRECHT. With the permission of our worthy Secretary, I would like to ask him, for the information of all of us, what has become of the plan which Mr. McFarland proposed at a previous session. I may say that I am not particular as to details; I only ask for some means by which we can more readily recognize one another. I know that Mr. McFarland's plan was being worked up, but I cannot now call to mind what that plan was.

Secretary STEWART. The Society's report for last year states, I think, what was done with it. It came up again, however, and the Executive Committee, at its meeting here last January, after full discussion, voted that it was impracticable and impossible of being carried into effect satisfactorily. They so notified Mr. McFarland.

Mr. J. M. JORDAN. In view of the fact that the proposition has been before the Society a number of times, and has been repeatedly passed upon as being impracticable, I move that the further consideration of the subject be indefinitely postponed.

A *viva voce* vote being taken on Mr. Jordan's motion, the PRESIDENT announced that the noes seemed to have it.

A rising vote was then taken, which resulted thirty-five in favor to fifteen against. So the subject was postponed.

Mr. E. S. NIXON, of Chattanooga, Tenn., moved that the Secretary be instructed to furnish, at the next meeting, a small narrow ribbon to be worn by the members of each State delegation, with the name of the State in each case printed thereon.

The motion was not agreed to.

The Convention then adjourned until evening.

THE BOWLING CONTEST.

During the afternoon the bowling alleys in the Victoria Club Rink, on Huron Street, thundered and rattled with the contest of the bowling teams of the various florists' clubs in the contest for the cup presented by the Toronto Gardeners' and Florists' Club. There was a large crowd of visitors in the rink, the ladies forming a good proportion, and the tumbling pins and the score board were watched with interest. Six clubs entered in the match, all with longing eyes on the handsome trophy displayed on a table at the western end of the rink.

THE TROPHY.

The cup is of beautiful design, burnished silver with gold mountings. On the top is a beaver in oxidized silver on a gold maple branch. Two bowling alley balls of oxidized silver rest on the base. The scrolls, rims, and feet are neatly tipped with gold. The following inscription is tastefully engraved on the side within a finely chased wreath: —

“Presented by the Toronto Gardeners' and Florists' Club, Toronto, August 20th, 1891.”

In addition to the handsome first prize, there were five other prizes furnished by contributions to a sweepstake among the clubs. These were a silver cup valued at \$25 for the club making the second highest score, a silver cup valued at \$18 for the club standing third on the list, and three diamond pins valued respectively at \$15, \$10, and \$7.50 for the three highest individual scores.

The aggregate scores made were as follows: —

BOSTON.				PHILADELPHIA.			
1st game	.	.	831	1st game	.	.	894
2d game	.	.	837	2d game	.	.	954
			1688				1848
BUFFALO.				NEW YORK.			
1st game	.	.	792	1st game	.	.	887
2d game	.	.	825	2d game	.	.	961
			1617				1848
CHICAGO.				TORONTO.			
1st game	.	.	795	1st game	.	.	534
2d game	.	.	785	2d game	.	.	723
			1580				1257

Philadelphia and New York, being a tie for first place with 1848, played off a half-string with the following result: Philadelphia, 480; New York, 432.

The result gave Philadelphia first prize, with New York second, and Boston third. The individual prizes were won by the following gentlemen, with the scores as indicated: G. L. Grant, Chicago, 192; Alex. Burns, New York, 184; I. Forstermann, New York, 179.

THIRD DAY. — EVENING.

The Convention reassembled at 8.35 P. M., President NORTON in the Chair.

BEGONIAS.

MR. JOHN CHAMBERS, of Toronto, Can., being called upon, presented and read an essay on "Begonias, Flowering and Foliage; their Value as Bedding and Decorative Plants," as follows:

The genus *Begonia* was named in honor of a noted French botanist, M. Begon, more than one hundred years ago, and would it were possible for him to know the importance this genus is to us at the present moment, as it is one of the most amenable, distinguished, and popular plants we are in contact with to-day.

The number of species up to date amounts to nearly two hundred. They come from Mexico, from the West Indies, from Brazil and other parts of South America, and from India.

It is impossible for me to tell you about *all* Begonias in a paper so limited as this necessarily is. It is, however, important for me to say that there is not one of the several sections of this important genus but what is worth the attention of our Society. It is seemingly necessary to divide up the genus for practical purposes into several groups, viz., winter-flowering kinds of shrubby growth; summer-flowering kinds of the same structure; species of such kinds as *Rex*, having beautiful foliage and caulescent stems; species of such known as *diversifolia* and *discolor*, having party-colored leaves, but of shrubby habit and growth.

There is yet another section of this genus strictly herbaceous in character, springing into growth, flowering, and afterward going to rest as some other bulbous plants do. The types of this section are, *Veitchii*, introduced from Peru in 1867, and *Boliviensis* in 1857, and from these species have all the magnificent varieties originated which are so deservedly popular to-day.

Both the double and single varieties include all known colors except black and blue. We have the purest white to the darkest maroon; all

shades of yellow, from straw color to old gold; reds, pinks, and salmons in all denominations; and many that take on two or even three distinct shades, merging into one another. Flowers of the single variety that would cover my hand are not an uncommon occurrence, the doubles attaining almost the same size.

The cultivation of the Tuberous Begonia, also the propagation of the same, may be of some little interest to you, so I will give a short outline of the general methods practised by myself and of those who have made the Tuberous Begonia a specialty. It is a case of "first catch your hare and then cook him," that is, you must either start with seed or bulbs, or both, which you may either beg, borrow, or steal. The seed should be new.

If you have any shallow pans, clean them thoroughly; use plenty of "crocks" at the bottom; mix a nice light compost of peat, a little well-decayed leaf mould, and sharp sand, after covering crocks with a little dry moss to keep the soil from running amongst them. Fill pan to within one half inch of the top; press lightly; sow your seed very thin (this is an important point) and cover with a thin layer of silver sand; water well, and cover with a piece of glass, and shade from the direct rays of the sun. As soon as large enough to handle, prick out immediately into shallow pans with as little delay as possible, as this is one of the secrets of success. Keep shifting into larger pots until the time arrives for rest; gradually dry off and place in a dry shed or cellar.

The seed should have been sown as early in the spring as possible. Now that you have nice young tubers (unless you want to sow another packet of seeds) knock them out of the pots carefully, throwing away those that have been attacked with dry rot; procure a few shallow propagating boxes and some leaf mould; place them in this about one inch apart, till they commence to start and make a few roots; by this time you will have had some clean five-inch pots ready for their reception. A nice light potting soil will do for this shift, but when it comes to seven, ten, and twelve inch pots, which you can easily shift them into in one season, the following is a good recipe: Say to fifty parts of good fibrous turf add twenty-five good peat, ten leaf mould, ten sharp sand, and five good rotted manure or bone-dust. Mix thoroughly and pot lightly.

Begonias of this section are gross feeders, so when they have had their last shift and the pots are full of roots, a good top dressing and a liberal supply of liquid cow manure applied three times a week will help them wondrously. Some varieties will require pinching, but one must be guided by his common-sense in this respect.

A light, airy, span-roofed house is the best place to grow them, with plenty of shading on sunny days; syringing in the early part of

the day is also very beneficial: tobacco stems placed around the pots will help to keep down green fly.

For bedding, a partially shaded situation suits them best, and they should be planted in from four to five inch pots. Keep well watered, and they will well repay any trouble in that direction.

The shrubby kinds can be propagated by cuttings in the usual way. Of the Rex varieties it is for me to say that if they are liberally treated and well taken care of, magnificent specimens can be procured, and few plants are of more value for decorative purposes.

The PRESIDENT invited discussion of the paper, and stated that its author was prepared to answer any questions in regard to it that might be addressed to him.

MR. JOHN THORPE, of Pearl River, N. Y. Mr. President, the very able paper just read must be of great value to all of us. I regret, however, that Mr. Chambers did not, in my judgment, lay sufficient stress upon the Begonia as a bedding plant. He states, in his paper, that it should be planted in shady positions. That is contrary to my own experience. I consider that the Tuberous Begonia is a rival to the Geranium as a bedding plant. I cannot give all the details of the varieties, but these doubtless could be given by a gentleman whom we have with us to-night, and who is identified with probably the finest collection of Begonias in the world. I have no doubt he will with pleasure give us some information on the subject. I refer to Mr. Harry J. Laing, of London, Eng.

The audience, in rounds of applause, joined in the call upon Mr. Laing, but that gentleman, being apparently taken by surprise, was reluctant to come forward. Finally, upon being escorted to the platform by Mr. Thorpe, he responded as here stated.

MR. HARRY J. LAING. Mr. President, it is but natural that, in my present position before you, I should feel some embarrassment, after the very able lecture just given by Mr. Chambers. His thorough exposition of the subject has left me but little, if anything, to say. Perhaps a brief history of the origin and improvement of the Tuberous Begonia, written by my father, would be of some interest to you, and I therefore propose to read it. (Referring to portions of a recent article by Mr. John Laing, of London, Eng., the speaker continued.) It is now some seventeen years since I commenced cross-breeding and hybridizing Tuberous Begonias, and as "truly marvellous" may well be described the progress which has since been made. Previous to taking the Begonias in hand, I had been a keen observer of what had been and what was, about that time, being done by Seden and others, with the species found in Bolivia and Peru by Pearce and Davis; and conceived the idea that, in the improvement of the Begonia as a green-

house decorative plant, there was a field open to such an ardent hybridist as I had long been, which promised "great expectations." I must now confess that never in my most sanguine moments did I anticipate that they would ever become the magnificent plants we now see them.

At the time when I began the Begonia cultivation there were only three species, viz., *B. Boliviensis*, *B. Veitchii*, and *B. Pearcei*, and a few named seedlings raised by Messrs. Veitch and Messrs. Henderson and worked upon; but these I hybridized and cross-bred assiduously for a few years, making, however, no great progress until I had seedlings of my own, and took advantage of every slight improvement I found among them. The results, even then, were by no means satisfactory, and the rate of progress altogether too slow, so that I had either to give up or make a bolder bid for victory. The latter course was determined upon, and I purchased, regardless of cost, every variety that could then be obtained. Among them were a lot of very inferior sorts, but there were some good ones which, carefully crossed with my own seedlings, gave me a lot of pedigree seeds that were sown in 1878. When the seedlings began to show their character, I was delighted to find my hopes realized, for a great change had undoubtedly been effected; and when I exhibited, in the summer of the same year, at one of the Royal Horticultural Society's exhibitions at South Kensington, a group of well-flowered plants, it is no exaggeration to say that they fairly took the floral world by surprise. They were the admired of all beholders, and to that group was by acclamation awarded the first gold medal ever given for seedling Begonias. Several first-class certificates were also given to selected varieties, and thus was the Begonia characterized as "the coming flower."

This, it should be remembered, was before any other nurseryman had attempted to raise them from seeds, with the exception of Messrs. Veitch, Messrs. Henderson, and Mr. Bull. The two first-named firms soon gave up the race for novelties, but Mr. Bull continued to raise seedlings and send out new varieties for some time after. One of my first seedlings was named *Mrs. Carter*, and that was the first approach we had to a round flower with an erect flower stalk.

The successes of 1878 literally fired my enthusiasm for the Begonia, and by using the finest of that year's seedlings as seed bearers, while utilizing the pollen of all the colored varieties I had got, I obtained the next season some still greater advances. That year gave me the variety *Stanstead Rival*, the finest Begonia ever seen at that time. It had a fine, stiff habit with good, bold foliage, almost erect flower stems, and nearly circular blossoms. This variety, which was awarded several first-class certificates, was seeded for several years before being put into commerce, and it was the progenitor of all my subsequent improvements in single varieties. About the same time I also raised a small-

flowered variety, with blooms nearly black in color, and from this has sprung all our superb dark crimson sorts.

The double-flowered varieties made their appearance at about this period, but progress with them was very slow at first. Nevertheless, by carefully studying their qualities and individual characteristics, I was enabled to make headway with them in time, and had the good fortune to obtain many novelties of first-class merit.

In due time the possibilities of the Begonia as a bedding plant became uppermost in my thoughts, and an experiment on a liberal scale soon proved to me that they had qualities for that purpose of a high order. To test them for hardiness I also let the roots remain in one bed all through the winter, but covered over with coconut fibre refuse, and a sheet of corrugated iron, to keep the wet off the crowns of the tubers, and was rewarded the following season by their flowering splendidly. By this experiment I found that the tubers were at least as hardy as potatoes, which perhaps was not to be surprised at, seeing that their native habitat and altitude in Central America are about the same.

I do not know what more to say, ladies and gentlemen. I think that most of you are aware to what quality the Begonia has arrived; and if the position and situation are selected, I am certain the Begonia will be found a most suitable plant for this country as well as for our own. [Applause.]

THE PRESIDENT. The Begonia is still before the meeting for discussion.

MR. JOHN THORPE. Mr. President, I would like to say, in regard to the using of the Tuberous Begonia as a bedding plant, that I have found if the bulbs are kept over during the winter in a cold place, one in which you can keep potatoes, and if the bulbs are planted out at about the same time that you would plant potatoes, the result is a great deal more satisfactory than it is when the plant is subjected to artificial treatment previous to planting out. I am satisfied that this is an important factor in the success of the Begonia as a bedding plant. Therefore, my advice to you who are interested is to buy the bulb the same as you buy the Gladiolus or Lily, and to plant them at about the same time.

NOMENCLATURE.

THE PRESIDENT announced, as next in order, the report of the Committee on Nomenclature.

MR. WM. FALCONER, of Glen Cove, N. Y., chairman of the committee, presented the report. He explained that it would be printed in full in the Proceedings, and that, on account of its extreme length, he would economize time by reading only the more interesting portions of it. The following is the report in full.

REPORT OF THE COMMITTEE ON NOMENCLATURE FOR 1891.

Mr. President: The Committee on Nomenclature last year centred their attention upon the question of synonymy among garden plants, such as Roses, Carnations, Chrysanthemums, and the like, and presented as full a report on this topic as could well be compiled from the material, which was voluminous, at their command. So thoroughly had this subject been gone into last year, that we find but little to do in it this year. But we have applied ourselves assiduously, openly, and fearlessly to other questions of the nomenclature of garden plants, and now come before you to submit the result of our labors.

Through the horticultural and rural press we appealed to the florists and public at large to help us by bringing to our notice any mistakes in the nomenclature of plants, accidental or intentional, that had recently come to their notice, also instances of false representation of plants offered for sale; and every newspaper we applied to published our appeal, and several, "The American Florist," "Florists' Exchange," "Popular Gardening," "Rural New Yorker," and the "Practical Farmer," for instance, also gave us vigorous editorial support. And we here wish to publicly thank these and the others for their able and generous aid in our behalf; and we also thank the several newspapers which called attention to our work, without being asked by us to do so.

We have also written to one hundred and nine different persons who were likely to be interested in the nomenclature question, and received replies from ninety-eight of them, and in several cases a general correspondence between them and us on the subject has been the result.

Forty-three letters have been voluntarily sent to us. Some of these have been giving us advice, others asking for advice, and one or two have been a little sarcastic or ill-natured, but the large majority of them have been open, honest, well-meaning communications, drawing our attention to what the writers believed to be cases of misnaming, ill naming, or synonymy in the case of cultivated plants, or complaining of the evils of substitution or beguiling misrepresentation, of which they said they had been the victims.

As you may like to know the general tenor of the letters we get from correspondents, the following from Indiana about misnamed plants will illustrate a type of them:—

1. Mme. Camille Rose has also the name Amazone Tea.
2. In buying, my experience leads me to suspect there is some confusion in regard to Chromatella, Lamarque, and Solfaterre Noisettes.
3. Euphorbia splendens is quite commonly sold for a Cactus. Agaves and Aloes also frequently go under the same name.
4. Flowering Maple is in common use for the Abutilon. Saxifraga sarmentosa is best known here under the name of the Beefsteak Geranium.
5. Tecoma radicans is often catalogued as Bignonia radicans, and by many the two names are considered as belonging to the same or one plant.

The first mentioned is the true Trumpet Creeper. The latter is a cirriferous, pinnate-leaved evergreen with smaller and lighter colored flowers.

"6. I have also heard the name *Habrothamnus* and *Achania* interchangeably applied to *Achania Malvaviscus*.

"7. *Coccoloba* is often given in place of the correct generic name of *Muehlenbeckia platyclada*.

"8. It is probably well known among all intelligent florists, but it may be well to here call attention to the facts, that *Myrsiphyllum asparagoides*, though popularly is not correctly called *Smilax*, and the same is true of the name *Geranium* applied to *Pelargonium Zonale*."

We could only answer this letter in this way: 1. *Mme. Camille* and *Amazone* are distinct *Roses*. 2. *Chromatella*, *Solfaterre*, and *Lamarque* are also distinct from each other. 3. Using the name *Cactus* as an English word, it is often applied to fleshy cactus-like plants, even if they are not *Cactuses*; and it is in this way also that *Aloe* is used for *Agave*, for instance, *Agave Americana*, the *American Aloe* (Dr. Asa Gray). 4. *Flowering Maple* is, probably, a local name suggested by the maple-like leaves of the *Abutilon*. *Beefsteak Geranium* as applied to *Saxifraga sarmentosa* is, likely, a mixing up of two other accepted and recorded English names for it, to wit, *Beefsteak Saxifrage* and *Strawberry Geranium*; but *Beefsteak Geranium* is now also a common name throughout the country for this plant. 5. *Tecoma radicans* and *Bignonia radicans* are identical; the first name is the proper one. 6. Both of these generic names are wrong. *Cestrum* is the proper name of *Habrothamnus*, and *Malvaviscus* is the proper name of *Achania*, and instead of writing *Achania Malvaviscus* we should use the correct name, which is *Malvaviscus arboreus*. 7. *Muehlenbeckia platyclada* is correct. 8. In this case we use the name *Smilax* as an English name only, and not as a botanical one; more than that, *Myrsiphyllum* is now included in the genus *Asparagus*, so that *Asparagus* is the proper name, and not *Myrsiphyllum*. We also use the name *Geranium* as an English word to designate certain sections of *Pelargonium*, and no influence we could bear against its use in this sense would ever cause the people to renounce it in favor of the proper botanical name.

We have also made diligent search among the catalogues of the florists and seedsmen that have come to us, and wherever we observed anything of an unseemly nature, we applied ourselves to its investigation; and with this end in view, we not infrequently bought seeds or plants of the questioned or doubtful articles, to make sure of the condition of things before we brought the matter to the notice of the florist or seedsman. This gave rise to considerable correspondence, mostly pleasant, but occasionally unpleasant. In every instance, however, except one, as soon as it was realized that we had taken a determined stand in the matter, the error was acknowledged and its rectification promised. In several cases there were extenuating circumstances that rendered the dealer blameless, and in some instances the mistake had been discovered by the florists and noted for correction in future catalogues before we called their attention to it.

NAMING PLANTS.

It is understood by some that the business of this committee is to name whatever plants one may send to it: but this is a mistaken idea. In twenty-nine instances we have received samples of plants for name: in most cases parts of the plant, as leaves or flowers, were sent, sometimes a sketch only of the plant was enclosed, and in a few instances merely a description. In most of these cases the plants inquired about were hardy perennials, trees, shrubs, and wild plants, in some greenhouse plants; several have been plants picked up by florists on their travels at home or abroad; occasionally they were flowers from dealers who had received them from growers anxious to sell the stock of them, and we have had a collection of ferns gathered in Central America, for name. Whenever we were able to give the desired information, we have done so cheerfully, but sometimes we were unable to name the plants, and the samples and descriptive matter regarding them were insufficient for us to submit them to a systematic botanist.

Although naming plants does not come within our sphere, we will take this opportunity to urge upon you, whenever you want a plant named by any one, to send the best and fullest sample you can get, together with as full a description as you can give of the plant: also pack the flowers in tin, wooden, or other hard box that cannot be smashed in the mails.

GETTING AT THE PROPER BOTANICAL NAME.

We do not presume to interfere in any way with the botanical nomenclature of plants: that is the mission of the scientific, systematic botanist. But it is imperative that we know the proper botanical names of the species of plants we handle, and we can urge no valid excuse for not knowing the plants we deal in.

It sometimes happens, however, that the botanical identification of a plant appeals more directly to the horticulturist than the botanist. Such a case is presented in the following letter from Mr. E. D. Sturtevant, Bordentown, N. J.:—

“*Nymphaea Zanzibarensis* was sent from Africa to Dr. Caspary of Königsberg, Prussia. Some time afterwards I received bulbs of this species from Dr. Caspary which produced flowers of a dark blue color approaching purple. I began to raise seedlings, but only a small percentage produced dark colored flowers, the majority (from the same seed-vessel) being of a fine blue color. Assuming that the dark colored form was the type, I have continued to call it *N. Zanzibarensis*, and for convenience named the lighter colored form *N. Zanzibarensis* var. *azurea*. After a time a seedling sport appeared resembling the parent in every way except the flowers were rosy pink and the sepals bright green: this I named *N. Zanzibarensis* var. *rosea*. Now some florists are offering the blue-flowered form as *N. Zanzibarensis*. As the purple is so apt to revert to the blue when raised from seed, possibly the blue-flowered form is the type. If so, let it be determined, and let us have a name for the purple one.”

This letter was submitted to Mr. Sereno Watson, curator of the Herbarium, Botanic Garden, Harvard University, who replied: “The colors of

Nymphaea Zanzibarensis, as described by Caspary in 1877 (*Bot. Zeitung*, 35, 203) are, sepals deep green on the outside with a broad deep scarlet margin, or coming blue (*cyaneus*) — deep blue (*violaceus*) — scarlet within. Petals deep blue (*azureus*), whitish at base, the outer ones scarlet above the base. You see that various shades of blue are mentioned, but not *purple*. Mr. Sturtevant's variety *rosea* appears to be the nearest type."

Another instance of the great importance to a florist of a wide and intimate knowledge of species of cultivated plants, and their corrected nomenclature to date, comes to us in the form of a complaint by one of the oldest and most conservative plant dealers in the country. He writes: "In the catalogue of a leading London house, a plant is figured under the name of *Thunbergia affinis*, with a very attractive description. I imported plants of it at a good price, and now they are in bloom, and I find they are identical with what I have grown for years under the name of *Meyenia erecta*, and of which I sell nice plants for twenty-five cents each."

As other florists would do, as soon as he received his new *Thunbergia* from London, he urged its growth and multiplication, and halted not to see it bloom, and accepting the English firm's description of it as true, used it in advertising his plants: and now when his customers have been served, and he has had an opportunity to let his plants grow and bloom, he is horrified to find, as he thinks, his new *Thunbergia* is nothing other than the old *Meyenia erecta*! And he concluded that he had been swindled by the English house, and expected that every one of his customers who had bought a plant would also consider himself swindled.

This case we submitted to Dr. Thomas Morong, curator of the Herbarium of Columbia College, and who very kindly replied: "If you happen to have access to '*Curtis's Botanical Magazine*,' edited by Sir Joseph Hooker, you will find in Vol. XLV., 3d Series, Tab. 6975, the whole thing which you wish to know fully explained, with a beautiful colored plate of the so-called *Thunbergia affinis*. Hooker thinks that it is only a 'glorified form of the old *T. erecta* (*Meyenia erecta*, Benth.),' and says that had it not been named and described as a different species, he should probably name it as simply a form of *T. erecta*."

"I judge that the two species run very close together, and that it needs careful discrimination to distinguish them. Very likely your correspondent has not received the true *affinis*, which would not, however, imply any dishonesty on the part of the London house from whom he obtained the plant, it being so variable."

A Washington correspondent writes: "Some years since, some English catalogues announced a new species of *Ampelopsis* as *A. Japonica*. I ordered a plant at a good price; but it had much the appearance of Poison Ivy (*Rhus Toxicodendron*). However, to be sure, I imported another plant, and after growing this some time, I discarded all, being fully satisfied all sent me were Poison Ivy."

This *Ampelopsis Japonica* case was also reported to us from Rochester, N. Y., and we were informed the name, *A. Hoggii*, was likewise

used for the same plant. Under the name of *Cissus Japonicus*, it was also imported from England by a member of this committee, who found in it such a strong resemblance to the Poison Ivy, that he too discarded it. But before doing so, as the plant had a decided varietal difference from our common Poison Ivy, he sent a plant of it (some years ago) to the Arnold Arboretum under the name of "*Rhus Toxicodendron* from Japan." On submitting the matter to Prof. C. S. Sargent, some days ago, he replied: "You sent us a Japanese *Rhus Toxicodendron*, which we still have in the collection. It looks a little different from the American species, but I have no doubt is identical with it."

REVISING THE NAMES OF PLANTS IN CATALOGUES.

It sometimes happens that the name of a plant given in a catalogue may be the true name, at the same time not the modern or now proper name of it; and as we wish to be as progressive in our nomenclature as in our business, we should adopt these modern names. For instance, *Wahlenbergia grandiflora* should be *Platycodon grandiflorum*; *Pistia stratiotes* should be *Eichornia*, and so on.

Apropos of this matter, the veteran Mr. T. R. Trumpy, of the Kissena Nurseries, wrote: "If we should suddenly make a new catalogue with the now likely correct names, our customers would be paralyzed, and so would we and others. You know perfectly well that our leading firms, Ellwanger & Barry, for instance, still carry to some extent the old names; now then you understand why we have to cling to the old. Prof. C. S. Sargent calls *Stuartia Japonica*, *Pseudo-Camellia Japonica*, and our beautiful *Magnolia grandiflora* of the South he calls *Magnolia foetida*, which means the Stinking Magnolia! And these are only a few of the things I would like to call your attention to; what say you?"

We explained to Mr. Trumpy that sooner or later the change would have to be made; that the horticultural press would recognize no other than the modern nomenclature; that catalogues could not afford to work in opposition to the press; that the press using one nomenclature and the catalogues another would confuse and mislead the public; and our best efforts to preserve the names of garden plants in truth and purity would be sapped by the catalogue men — the very people who should be most ardent to support our work — and our labors rendered useless. Besides, the change need not be made harshly; the old and the new names both should be given, the modern one as the true name and the old name parenthetically, for instance, *Magnolia foetida* (*grandiflora*), *Spiraea Cantonensis* (*Reevesiana*), and so on.

To exemplify how graciously the public will accept the change, let us mention the case of *Exochorda grandiflora*. It is only a few years ago that this plant was generally catalogued as *Spiraea grandiflora*, but now we all know it as *Exochorda*, and as such it is catalogued. In acknowledging our explanation, Mr. Trumpy wrote: "You are, of course, absolutely right. . . . Sooner or later we all have to come to it and, why not now?"

As soon as we print again, we intend to do this very thing. . . . I am with you, heart and soul."

THE SAME NAMES FOR DIFFERENT SECTIONS OF ONE CLASS OF PLANTS.

In the case of Pelargoniums, we have show and fancy varieties; in Roses, Hybrid Remontants and Teas; in Dahlias, large-flowered and pom-pones; in Irises, German and Kämpfer's; in Chrysanthemums, Japanese and Chinese sections, and so on; and it not infrequently happens that the same varietal name may be used to designate a plant belonging to each section. Vivid cases of this kind occur in Dutch Hyacinths, when the same name may be used to designate white, red, or blue varieties. Our attention has been called to this in the matter of Gladioli. A member writes: "Why does Lemoine persist in giving, year after year, to his new Nanceianus hybrid gladioli, the same names that standard sorts of Gaudavensis have had for years previously? Nancy and Paris are close enough together to avoid this, I am sure. I would instance Louis Van Houtte, Ceres, and Pactole." Certainly a repetition of names in this way is often annoying and sometimes misleading, but we do not declare it to be wrong; at the same time, we recommend that the practice be discontinued.

THE PROPER PRONUNCIATION OF THE NAMES OF PLANTS.

This is a matter which has been brought to our attention several times. Let us quote from the letter of an Indiana correspondent: "Very many of our flowers have French names, which no man not a Frenchman can properly pronounce, and in the attempt to do so many persons of good intelligence make grievous and ridiculous mistakes and misnomers much to their chagrin. I propose that your Society consider this matter and insist on it that every catalogue issued by your members contains in every item, or name of plant advertised, the corrected pronunciation in an explanatory adjunct, so plain that all may clearly understand. Let this rule apply to all names where silent letters are used and where botanical names or those of foreign adoption are employed." Another case which most of you may have observed, occurred in the "Florist," page 941, 1891, in which a correspondent calls for a "Committee on Pronunciation" to give "the correct pronunciation of such names as Clematis, Gladiolus, Pelargonium, and Niphetos."

We would say that this pronunciation matter is entirely outside the sphere of the Nomenclature Committee, and there is no need whatever for any special committee of florists for such work. In the supplement to Nicholson's "Dictionary of Gardening," we have a "pronouncing dictionary of the ordinal, generic, and specific names given in this work," and which occupies ninety-one full pages. It is at once the most complete, painstaking, and authentic work of the kind in the English language.

And as regards the pronunciation of the names of plants in florists' catalogues, this committee has no right whatever to dictate or interfere. It is not how the names of plants shall be pronounced that concerns us, but that the proper names of the plants shall be used.

POPULAR NAMES OF PLANTS.

Our attention has been directed by several persons to "absurd and inappropriate," as they term them, common names as applied to garden plants. Among these Mr. William Saunders, of Washington, instances Cruel Plant, Moonflower, Mother-in-Law Plant, Weather Plant, Rose of Heaven, Sunset Plant, Firecracker Plant, and others: but the matter is beyond our province, and any action we might take against them would neither eliminate them nor arrest their use. The multiplicity of kinds of flowers is keeping pace with the universal love for them and their general cultivation, and while we recognize the utility and imperative necessity of botanical names in the case of all species of plants, we also recognize the right of the people to give common names to all plants. *Reseda odorata* is sufficient for the botanist, but by the name of Mignonette the same plant is and shall be known to the public at large. The children of New England don't scour the woods in spring for *Epigaea repens*, but for Mayflower; the farmer's wife does not sow *Lathyrus odoratus* in her garden, she sows Sweet Peas; the city belle does not wear a corsage bouquet of *Convallaria majalis*, she is satisfied with Lily-of-the-Valley.

Butter and Eggs, Bleeding Heart, Dutchman's Breeches, Fair Maids of France, Love lies Bleeding, and many other familiar names, apparently as incongruous as the ones above objected to, have been accepted with perfect grace by our greatest and noblest botanists—the late Dr. Asa Gray, for instance—as well as by the common people: and far be it from us to interfere between the people and their popular names for common flowers.

The name Moonflower as applied to *Ipomoea Bona-Nox* or *I. grandiflora* appears to us to be no more inconsistent, than that of Sunflower to *Helianthus*, or Star Flower to *Trientalis*. And the name Weather Plant as applied to *Abrus precatorius* was the common name by which this plant was known in Europe while its reputation was in its zenith and it was being submitted to severe scientific tests. Even the botanical authorities at Kew, when they issued a bulletin solely devoted to the behavior of this plant as scientifically tested at Kew, headed their Bulletin THE WEATHER PLANT.

And while we regret to meet in modern catalogues such uncanny names as Ghost Flower and celestial appellations as Angel's Robe Pansies, we are pleased to find that the bent of the people is towards brief, apt, and euphonious names for their flowers. For instance, Red-Hot Fiery Poker Plant as applied to *Tritoma* is now generally supplanted by the more appropriate one of Torch Lily.

The enormous amount of florists' and seedsmen's catalogues that are spread, every year, broadcast over the country and find their way into every crack and cranny of the land, have a powerful effect in influencing the people regarding the names of flowers, and to this more than to any other cause is attributable the growing familiarity of the people with botanical names, and the acceptance by the people of so many botanical names as English ones. For example, Fuchsia, Verbena, Aster, Begonia, Petunia, Phlox, and Dahlia are all pure botanical names, and, too, from

common use, accepted English ones; indeed, the botanical name is often simpler than the English one: to wit, who would ever think of buying a packet of Youth-and-Old-Age seed when he wished to get a packet of Zinnia seed?

THE RIGHT TO PRE-EMPT THE NAMES OF NEW PLANTS.

In the case of new species of plants, the first published botanical name takes precedence, but this publication must be technical and made in a recognized botanical or horticultural periodical or work, and not in a trade catalogue. In the case of florists' varieties, or garden varieties as they are more commonly termed, a botanical description is unnecessary, but the plant should be pointedly described, and the first authenticated name published, either in the way of reading matter or as an advertisement in a general horticultural or floral magazine or widely circulated trade catalogue, or officially noted when the plant is exhibited at some prominent horticultural exhibition, or before some regularly organized public body of horticulturists, should be recognized as the true varietal name, and no matter should the same variety originate elsewhere, the originator in the second case must not disseminate his stock under any other than the original name.

A case in point was submitted to us last June: A Rose grower of New Jersey secured a sport from Catherine Mermet Rose, identical, he says, with Montgomery's Waban, and he proposed giving his sport the name Hugh Waban, to distinguish it from the Massachusetts plant; but before doing so he had the laudable courtesy to submit the question to this committee. We advised him of the impropriety of using the name he proposed, and that he should adopt for his plant the first published name, Waban, and as a precedent quoted to him the case of the Bride Rose, which originated at two different places at the same time. Nor was this a solitary case. In acknowledging our letter, he replied: "I wish to thank you for your explicit and carefully considered verdict regarding my sport from the Mermet. . . . Your recommendation will be followed out as far as practicable. My chief concern had been to avoid imposing or infringing upon the originators of the rose Waban."

And we discountenance the right of any one to pre-empt in his own favor any particular name for any particular plant, before the plant has been publicly exhibited or described under this name. A case in view appeared in the "Florist" last year, in which a correspondent claimed pre-emption in his own favor for twelve names for Chrysanthemums to be given at some future time. It is the sense of this committee that these referred-to names were even then public property, and that he had no pre-emptive right to the names, because when he claimed the names he did not describe the several plants under the names he wished to pre-empt.

DIFFERENT NAMES FOR ORIGINALLY IMPORTED PLANTS.

It has happened before now that the same new plants have been introduced and disseminated by different florists the same year and under

different names, and each thinking that he alone possessed the whole and only stock of the plant in commerce. This has been particularly noticeable in the case of some of the *Chrysanthemums* imported from Japan. As neither florist is bound to withdraw his name in favor of his competitors, the several names go forth as synonyms, till after a while the public will decide upon which one to retain as the recognized name. *Chrysanthemums* are so widely grown and known that in their case the nomenclature will soon rectify itself; but in Kœmpfer's *Iris*es the confusion can only be remedied by an agreement between the principal growers of this class of plants.

"ORIGINAL" MISTAKES IN CATALOGUES.

When some novelty or new plant is gotten up and is to be put upon the market, it often happens that instead of the raiser or introducer handling it alone, he apprises the trade of his novelty, and offers them an opportunity to purchase a part of the stock, and include it in their catalogues. In these cases the trade generally accept and use the raiser's name and description, for they know no other; especially is this so as regards varieties, say of *Roses*, *Hyacinths*, *Cannas*, or *China Asters*. Where species are concerned, it seldom happens that a new species is first brought to the light of the world in a florist's catalogue; it most always has had published botanical recognition before then, and the careful florist or dealer in new plants, if he exercises due diligence, can generally acquaint himself with the published description of the species in question and satisfy himself of its identity; and right here comes in the utility of an early horticultural-botanical training for the florist, a good set of standard modern garden and systematic botanical works and periodicals for reference, and a herbarium of garden plants.

Every well-regulated house should have these as a part of the furniture of its establishment, and a competent person to use them.

EXAGGERATION IN CATALOGUE ILLUSTRATIONS.

Exaggeration in catalogue illustrations is more apparent in the quantity of blossoms stuck on to a plant than in the unusual size of the flowers, but altogether it is less evident in the matter of flowers than it is in vegetables. A good deal of artistic license is sometimes used in getting up a comely picture, but when these pictures are framed from memory or imagination they never are as beautiful or captivating as when truthfully copied from life.

Falsifying the illustrations of plants, or, in other words, using for the plants of to-day old illustrations of totally different plants, is done sometimes, but, happily, not frequently. Exaggerated cases of it occur, however; but it is with this as it is with unscrupulous dealings generally, the party who practises the one is apt to incline to the other.

A few of the cases of mis-illustrations that have been submitted to us are: An old *Moonflower* cut is used to show "*Ipomœa pandurata* in bloom."

For the "Resurrection Plant of Palestine" (which is *Anastatica Hierochuntina*, a little annual crucifer) a cut of an American *Selaginella* is used. But if the cut is a true representation of the plant this florist has for sale, then his description and not his cut is wrong, for this *Selaginella* is not indigenous to Palestine at all.

A cut of *Cyclamen Europæum* is used to illustrate *C. Persicum*, a different plant both in appearance and behavior.

A very aggravated case is that of "Hunnemannia, 'Child of the Setting Sun,' in bloom." The figure used to illustrate this marvellous "Child of the Setting Sun" is nothing other than an old cut of *Papaver nudicaule*, which in books and other catalogues has before now done duty for years, both in this country and in Europe; and to make this matter no better, into two of the corners of the cut blocks are inserted bearing the announcement, "We control this novelty exclusively." We have corresponded repeatedly with this party about this matter, but with little satisfaction.

Our attention has been called to the plant catalogues of a very prominent European firm doing a large business in this country. In their catalogue year after year, for the past few years, occurs the same full-page illustration of a greenhouse *Rhododendron*, with every year a new name attached to it. In the descriptive matter about the variety not a word occurs to explain to us that this cut is an illustration of a type and not of the individual. Such a thing could not pass unrebuked in this country; for instance, recall a case in *Fuchsias* discussed some time ago in the "American Florist," and we cannot give it our countenance.

EXAGGERATING THE DESCRIPTIONS OF PLANTS IN CATALOGUES.

In a general way there is less of this than one might suppose, and, although in a few cases it may be somewhat pronounced, as a rule the catalogue descriptions are pretty trustworthy, leaning, however, more to extolling the glory of the plant under consideration than revealing any of its defects. Indeed, the exaggerations, when they do occur, consist more of a superabundance of glorifying adjectives than any misleading statement. Sometimes, however, an errant statement is interjected by way of sensationalism. For instance, the "Jerusalem Cherry" (*Solanum Pseudo-capsicum*) is a native of the Mauritius, and why it should be called "Jerusalem Cherry" when it has nothing whatever to do with Palestine, any more than *Helianthus tuberosus*, a strictly American plant, should be called "Jerusalem Artichoke," we know not. But one of the members of this Society may be able to give us light, for in his catalogue we find, "This is a native of Jericho! from whence its name."

FALSIFYING THE DESCRIPTIONS OF PLANTS.

Exaggeration is bad enough, but when it comes to absolute falsification of the description of a plant as incentive to the people to buy the plant, the motive is simply detestable, and the perpetrator deserving of the utmost condemnation by this Society.

Euphorbia splendens is now being illustrated, described, and advertised as "The Crown of Thorns Plant," meaning thereby that the crown of thorns worn by Christ at his crucifixion was made from this plant. Authorities on such matters, however, have always led us to believe that the plant from which the crown of thorns was really made was either *Zizyphus spina-Christi*, or *Paliurus aculeatus*, two thorny shrubs that abound in Palestine.

In a catalogue sent to us we find, "On the wild rocky hills of Judea, and in the immediate neighborhood of Jerusalem, this emblematic plant is found, and from there our original stock was secured. It is a peculiar plant, thorny, with a few bright green leaves and an abundance of light rose blossoms, of easiest possible cultivation, and can be trained to assume any shape, as is shown in this cut. 'THE CROWN OF THORNS' WORN BY OUR SAVIOUR was made out of this plant, and the thorny branches were frequently used for the chastisement of offenders. Indeed, some sacred historians assert that the drink given to our Saviour before his death was made from the juice of this plant."

We wrote to the florist in question, directing his notice to this and other statements in his catalogue, and asking for an explanation. In a few days afterwards we had a reply which read: "The crown of thorns, we state in our description what it is, *Euphorbia splendens*." This reply being unsatisfactory, we again wrote to him for more light, and received the information: "We are positive that *Euphorbia splendens* and resurrection plants are found in Judea. This we have from a personal friend who was in this country and who brought along the plants." And as we were and still are satisfied that *Euphorbia splendens* has never been indigenous to the Holy Land, we could not accept of such a statement regarding the native country of this plant, and denying this, we could not admit the truth of its being used for the "crown of thorns," so submitted the matter to Dr. Thomas Morong, curator of the Herbarium of Columbia College, who most obligingly investigated the matter and replied:—

"I will do my best to give you all the information obtainable about the habitat of *Euphorbia splendens*, Boj. The only authority we have concerning the Syrian and Palestine flora scientifically determined is Dr. Geo. E. Post, of the Protestant College at Beirôt, Syria, who has made extensive collections in those regions and worked up the botany pretty thoroughly. He has issued a private account of the 'Botanical Geography of Syria and Palestine,' in which he gives full lists of all plants collected. I have looked carefully through this for *E. splendens*, but it is not mentioned. Nor is this species mentioned by Boissier, whose work 'Flora Orientalis' is intended to cover the region from Greece and Egypt to India, and who enumerates nearly 300 sp. of Euphorbias, but this species is not among them.

"The only writer whom I can find to have noted *E. splendens* is De Candolle, Prod., Pt. 15, p. 79, and he gives its native habitat as Madagascar, and says that it is cultivated in the Mauritius, the East Indies and European greenhouses." And, in a later letter, Dr. Morong further adds:—

“In reference to the *Euphorbia splendens*, about which you wrote me, Dr. Millspaugh, one of our best authorities in Euphorbias, writes me that he knows nothing of any such plant as growing wild in the hills of Judea, and does not believe it does. He says, ‘I should judge that the announcement is merely an advertising dodge.’”

As regards the statement, “some sacred historians assert that the drink given to our Saviour before his death was made from the juice of this plant,” we submitted the case to the Rev. Mr. I. McK. Pettinger, an eminent Episcopal clergyman, for his opinion. Mr. Pettinger replied:—

“That is an assertion entirely gratuitous on the part of the writer. It is an old dodge of infidelity to account for the speedy death of Christ, which was evidently miraculous or voluntary. It may be true that the drink, vinegar mingled with gall, which was offered to our Lord, was of the nature of an anæsthetic, *but he refused it.*”

“The best authorities I can find speak of no plant but the hyssop (*ῥοσσοπιος*) being the esobh of the Hebrews (*Capparis spinosa*, W. F.). I think the *Euphorbia* is a far-fetched scheme with no historic basis whatever. One of the best authorities on the subject is Dr. J. F. Royle, and he gives no opportunity for such an assumption, and leaves no room for any such a theory.”

INTENTIONAL RENAMING OF PLANTS.

We have abundant proof that this is done to a limited extent. But let us allow two of our correspondents to express their opinion. Mr. G. C. Watson, of Philadelphia, writes: “I have got an idea that intentional renaming of plants is not so extensive as has been claimed. That there are a good many plants masquerading under wrong names is undoubted, but errors are, I think, the main cause, rather than dishonesty.” Mr. C. L. Allen, of Floral Park, N. Y., takes another view of the matter. He writes: “It is much easier to make charges than it is to prove them, and we know of many cases of duplex names, without being able to trace their origin. The abuse in nomenclature is more common than is generally supposed, and is, in most cases, done with intent to deceive, and in as many instances for the purposes of gain, while in rare instances it is a matter of accident.” And after citing a few examples in the way of vegetables,—cabbages and tomatoes (which hardly come within our province as florists),—Mr. Allen goes on to say: “A prominent seed firm, anxious to get the best collections of Hyacinths for the various purposes for which they are used, had sent to them the most important of the named sorts for trial, and which were given every possible care and attention. The result showed plainly which were the best for glasses, pots, forcing, or the open border. To avail themselves of the knowledge gained by these trials, they renamed some twenty-five sorts, in order that others in the trade should not reap where they had sown.” And after commenting on this case, Mr. Allen continues: “The changing of a name is a crime, and he who practises it a criminal, because he takes for himself that which belongs to another. When he sells a plant generally known as John Doe,

for a new variety as Richard Doe, he deceives his customer, and deceit is dishonest."

In examining our florists' catalogues, your committee has found it a difficult matter to find out many mistakes intentionally committed with the view to deceive and defraud. But should a florist be unscrupulously inclined, he certainly would not make this evident in his catalogue; in fact, we have found the worst cases of misrepresentation and falsification under the Judas-cloak of religious hypocrisy.

THE SALUTARY EFFECT OF THIS COMMITTEE.

The existence of this committee has a salutary effect upon the whole florist business, and especially upon the catalogue trade. If you will compare the catalogues of to-day with those of five years ago, you will find strong evidence of carefulness in the nomenclature now used; in fact, the general tenor of our catalogues now is more towards plain facts and less towards sensation, notwithstanding a few aggravated cases to the contrary. And we find no disposition to openly repudiate or belittle the committee's work. The following, from a Philadelphia seedsman, is a fair sample of the trade's opinion, as openly expressed, of this committee:—

"That there was no intentional deception you will readily perceive. . . . You are to be commended for keeping a sharp eye on the frauds, and as I have no desire to be put in that category, I hope you will pardon this explanation. . . . I can assure you I go to a great deal of pains in cataloguing to have everything correct, and I would feel very sorry indeed if I thought you had any suspicion of unscrupulousness. . . . And if I make a slip, will only be too glad to rectify it."

And we find a disposition on the part of the large catalogue firms to give the botanical name as well as the English one of their novelties and not generally known plants, when these are other than garden varieties; in fact, to do all in their power to make it perfectly clear to the public what the plant is they are selling.

HUMBUG IN THE FLORIST BUSINESS.

That grand old florist, Mr. Louis Menand, of Albany, and now in his eighty-fifth year, raises up his voice against the humbug, in this wise:—

"I am as much opposed to deceit and humbug as is any one of you, and have the deepest contempt for charlatans of all sorts, and more especially for horticultural charlatans, and I sincerely trust you will succeed in purifying our ranks; but the task is herculean. You have two, it would seem, invincible foes to contend with; they are the god mammon in our own ranks, and the simplicity and credulity of a large portion of the public. Before you can render ineffectual the fraudulent representations of the fraudulent florist, you have got to stand, like a flaming sword, between him and the people, and warn and educate the people."

MR. WHITNALL'S SUGGESTION.

Mr. C. B. Whitnall, of Milwaukee, suggests the following working plan to the consideration of this committee:—

“First collect a copy of every catalogue and price list in our line published in the United States and Canada, and from them compile a handbook of all the plants, bulbs, seeds, etc., they contain. Let this book be divided into three parts, namely, Part I., indorsed; Part II., on trial; and Part III., protested. Every variety that is found to be true to name should be properly and truthfully described, and entered in Part I.; put every variety about which there is the least doubt into Part II.; and into Part III. put every variety you know to be a fraud, with full explanations, and state in plain English who is advertising it. And this handbook, which must necessarily be of considerable size, should then be sent to every member of the S. A. F. in good standing. This will do for a start. During the next year any one introducing a new article will be expected to bring it before your committee for its indorsement before advertising it. Your committee should also have an electrotype of a certifying sign which they will hire out for the first year; this will create a revenue. Any one noticing a new plant with that mark will have confidence in it.

“At the end of the second year you will compile a supplement to Part I., first reporting on trials of Part II., next giving an account of the additions made during the year, and then give an account of any unworthy advertising which may have come before you. This supplement should be mailed to the members of this Society, along with the annual Proceedings. It would gradually become quite valuable. I am aware that the carrying out of this plan would be both laborious and expensive.”

This suggestion of Mr. Whitnall is worthy of due consideration, and we regret that at our busy meetings we were unable to give it the full attention it merits. It is our opinion, however, that whatever our florists and seedsmen may do about submitting their new plants to the criticism of this committee after these plants have been put upon the market, they never will submit them before they send them out; further, that only a limited number of our florists or seedsmen would voluntarily contribute of their wares for our opinion; and instead of expecting to get the new plants and seeds of new plants gratis, this committee would have to purchase the greater number of them in order to obtain them at all. This would necessitate a more permanent Committee on Nomenclature than the one you now have; also an experimental garden in which to grow and test the plants under consideration by the committee; and we fear this Society is not yet in a condition to attempt so great an undertaking.

Subcommittee on Roses.

This committee respectfully submit the following:—

1. Snowflake, introduced by Messrs. Strauss & Co., Washington, D. C., is identical with Marie Lambert, introduced from France in or about 1884. This Rose is also misnamed in some sections as the White Hermosa.
2. Augustine Guimeseau, introduced from France in 1890, is also known as White La France.

3. Heinrich Schulthies, raised by Henry Bennett of England, in 1882, is identical with a variety known around New York as the Roehrs Rose.

JOHN N. MAV, *Chairman.*

ERNST ASMUS.

ROBERT CRAIG.

Subcommittee on Palms, Ferns, and Foliage Plants.

After giving the subject careful attention, we are of the opinion that such plants are seldom incorrectly named. Where cases may exist it is due mainly to ignorance, without any intention to substitute or defraud. Injury or loss seldom results, as the correct names are usually soon obtained and substituted. Reference to a botanical dictionary or any standard work on the special subject will readily assist in correcting any such errors.

We would state, in defence of this decision, that as yet not a single instance of such plants having been received under incorrect names, or any complaint whatsoever has been reported to us.

We have on several occasions received specimens of plants, accompanied by requests for correct names. All such requests we have given careful attention, and endeavored to answer satisfactorily. In some cases it was found impossible to render any assistance, owing to the imperfect condition of specimen, or absence of such parts as would be absolutely necessary to distinguish the subject from some other closely resembling it. We would suggest that when any such information is solicited, the sender will furnish when possible a plant or (if a fern) a perfect fertile and sterile frond, showing the formation of the sori and other characteristics.

CHAS. D. BALL, *Chairman.*

W. L. R. SMITH.

ROBERT GEORGE.

Subcommittee on Carnations.

Your subcommittee takes pleasure in being able to report that nothing serious has been made known in the way of synonyms, other than those reported last year.

About one hundred postals were mailed to those who were known to make Carnations a specialty, with a request to specify any Carnations coming under notice with more than one name. So far twenty-five replies have been received.

"Portia" has been reported with two more names, viz., "Scarlet Defiance" and "Secretary Windom," but as these are distinct varieties, they must have been cases of duplication.

"Edwardsii" has been reported as having another synonym in "Boule de Neige."

It is believed that "Nellie Lewis" and "Clarence Van Reyper" will prove to be identical, as they are similar in color and markings, and originated as *sports* from the older variety, "J. J. Harrison."

EDWIN LONSDALE, *Chairman.*

JOHN THORPE.

Subcommittee on Chrysanthemums.

Synonyms among Chrysanthemums:—

Baronald = G. F. Moseman; Bendigo = Mabel Ward; Empress of Japan = Belle Hickey; Yellow or Golden Ethel = Mrs. H. J. Jones; Golden Empress = Bruce Findlay; V. H. Hallock = Dawn; Thistle = Ismail; Gold Thread = Cashmere; Sunflower = Swanley Yellow.

JOHN THORPE.

JOHN N. MAY.

EDWIN LONSDALE.

Miscellaneous Plants.

Sweet Pea, the name Nellie Janes is sometimes used for Blanch Ferry. Clematis paniculata is the proper name for the vine introduced a few years ago as Clematis robusta. Quamoclit coccinea is the proper name for Ipomæa gracilis. Tropæolum (Nasturtium) Oriole, the proper name is T. Chaplet.

We deprecate the use of the name of Butterfly Orchid as applied to the Epidendrums, because it has long ago been pre-empted for Oncidium papilio.

Mr. H. A. SIEBRECHT. I move that the able report of Mr. Falconer be received with a hearty vote of thanks from this Society.

The PRESIDENT. The Chair is obliged to remind the Society that, by way of economizing the time of the Convention, a vote was passed by the Society some time ago, recommending that votes of thanks by the Society for essays or other papers be discontinued. The report will be received.

NEW CARNATIONS.

An essay on "New Carnations," by Mr. FRED. DORNER, of Lafayette, Ind., was here presented, and read by its author.

It was as follows:—

Among the large family of the Dianthus, our Carnation, the Dianthus caryophyllus, is the most prominent.

Dianthus, from dios, divine; and anthos, a flower. A divine flower is an expression most eminently suitable for our Carnation. Its popularity and usefulness come next to the Rose. Its keeping quality cannot be excelled, and the amount of glass devoted to its culture, and the number of flowers grown annually are enormous.

There is a wide field of progression and improvement for any florist whose love for the divine flower will prompt him to spend a little time and labor in producing new varieties, thus helping to advance our divine flower and place divinity on the throne of the flowery kingdom beside the queenly Rose. I will first ask the question, what

has become of the varieties grown ten or fifteen years ago, — varieties like Pres. Degraw, La Purite, Edwardsi, and many others?

I suppose they are cultivated yet, but only in localities. And how many of our present varieties are fast degenerating, and no longer pay to grow? What is the cause, and what remedy shall we apply? We will look into the first, and the answer will suggest itself for the second.

I have been told that in Europe (and you will agree with me it is here the same) they put the life or rather the paying time of a variety from six to eight years. I believe some of our varieties are even more short-lived.

In my opinion the cause of the degeneration lies in the nature of the plant, in its perpetuity of growing and blooming. Although perennial, we put the life of an individual plant at one year, and grow new plants every season. But propagation is not reproduction, it is only a part from the old plant grown to an individual again. This process gives new life, but by following it up year after year the stock must degenerate. We grow the first plant from seed, and then in an endless multiplication of plants we grow it from year to year until it dies. Grow a plant from seed, give it all the best requirements to grow and bloom, and its life will be at the longest but two years. Propagation only prolongs its life. There is no rest in the nature of the Carnation; it will keep growing, even in a low temperature that will put other plants to rest, while actual frost will kill it. Its sisters, the hardy Pink and the hardy Carnation so extensively grown in Europe for summer blooming, rest through the winter. The ever-blooming Carnation would die if subjected to the same treatment. Now, to regenerate our degenerating varieties, nature tells us to reproduce. The natural reproduction of all plants is only through the seed, and through this source we receive our new varieties. We actually get a new-born plant with new vitality and fresh vigor. But not only do we get new varieties: here are also the time and place to make improvements. Here is a wide field for enterprising florists, who will not leave everything to chance, but calculate and experiment. They are expensive operations, but seldom losing ones, as I will show further on with my experiments.

To accomplish satisfactory results, we have to deal with factors in the nature of the Carnation which make it difficult; and I will say right here that if not for these difficulties, I believe we would grow all our plants from seed instead of cuttings, and double our crops.

These difficulties exist in the tendency to breed back to its originality, a single flower of a carnation or flesh color, and in the incompleteness of its sexual organs. Like all double flowers, the double Carnation is only the result of high cultivation, and its doubleness becomes only part nature. Single-blooming flowers I presume will only bring single-

blooming plants again, while seed from double-blooming flowers will only produce from forty to fifty per cent double-blooming plants; the rest will be single again. As to the incompleteness of the sexual organs, I have found flowers totally destitute of the same: few have only the anthers, while a good many have only the pistils.

I never found any pollen on the Silver Spray yet, but grew successfully seed on it, when fertilized. Many flowers have the anthers, but are destitute of pollen. So if we want to grow seed, we have to employ artificial fertilization.

The tendency of breeding back has also a great influence in regard to the color. Seed gathered from only white flowers may produce red and pink, if some of their grandparents or still older ancestors were of that color.

From a white and pink variety I got scarlet and deep maroon, yet from Century and Grace Wilder I got excellent pink varieties, improvements on both the parents. So although this running out of the line frequently happens, it is not a rule.

Of 500 plants grown by me in 1889, about 250 were single; 150 bore split and imperfect flowers, some of them monstrosities measuring six inches in diameter; 100 I selected and grew again last year, and these were thinned out finally to about 25.

This leaves me five per cent good new varieties,—varieties with more vigorous growth, blooming more prolific than any of the older varieties now in cultivation, and a goodly number far ahead of any in every point, not to speak of the new shades, which are truly beautiful. The expense is in growing the seed and the young plants to the first blooming, but is considerably lessened by the outdoor culture.

The seed germinates readily, the young plants grow on fast, and by the time to plant out they are as large as those grown from cuttings, and by the time for housing again most have bloomed and shown what they are. True, it is rather discouraging to throw about seventy-five per cent away as worthless, but the remaining twenty-five per cent may repay you well for all your work. I give this for my experience, and think I am not far from a fair average. The second year's growing, or testing their merits, that is, plants grown by cuttings from the seed plant, is very interesting, and, what is still better, remunerative. The luxuriant, vigorous growth, the prolific blooming, form a striking contrast when grown side by side of older varieties. The 1,000 or more plants, 10 on an average of each of the 100 seedlings retained, grown for a second season, besides about 300 new seedling plants, were a sight worth seeing, as some of our brother florists present here, who visited my place last January, can testify. I am very sorry I did not keep an accurate record of all flowers cut, but I feel confident it would out-

number any statement made in this last winter's controversy in the "American Florist."

But on the other side, you will meet disappointments as well as surprises. Varieties which I thought the climax of a Carnation were, after testing, far inferior to their first blooming; and others, where I had been undecided whether to keep or throw away, came out on top. This shows that no variety can be considered constant, unless tested a second season. I am convinced that Carnation culture can be made more remunerative if we supplant our old varieties from time to time with new ones grown from seed. One variety has a longer life than another: one grows in one locality better than in another. New varieties can be grown and put on the market at a price that will enable every florist who grows Carnations to try them, and select what succeeds best with him.

Every merchant praises his ware. Every grower has the best new varieties. Put them within the reach of all, and the best will surely come to the surface. Owing to the short life a variety may have, it is not well to keep it back for high prices, and then throw it on the market when half its life is spent. One should be careful in selecting the parent plants to grow seed to use only the best material, strong, healthy growth, long, stiff stems, and the most perfect flowers.

Our divine flower, which is in our reach every day in the year, deserves more attention. More interest is already awakened, and I should be very much mistaken if we are not nearer Mr. Thorpe's ideal than he himself thinks.

In conclusion, I will say, that in growing new varieties from seed we should not make it our sole object only to obtain novelties, and sell them at an exorbitant price. Improvement is one part and should be remunerated. Necessity is the other part, and this should induce us to be liberal, and so advance the interest in the culture of the Carnation over the whole land.

Discussion of the subject was invited.

Mr. J. L. DILLON, of Bloomsburg, Pa. I would ask the essayist at what time he plants out his seedlings in the open ground when raising his Carnations.

Mr. DORNER. I sow my seeds generally in March, some as late as April, and some as late as May. I have some plants in bloom now from seed that I sowed last March.

COMMUNICATIONS.

Secretary STEWART here read several communications addressed to the Society. Among these was one from Mr. C. H. Joosten, calling

attention to the indefinite wording of the United States customs laws concerning the free importation of plants, as embodied in the words, *plants used for forcing for cut flowers and decorative purposes*, and complaining that, under the law, different interpretations had been made by the United States appraisers in the different ports of entry, causing great difficulties to the importer, and leaving the buyer in uncertainty as to the actual cost of the plants purchased. The writer suggested the appointment of a committee to ascertain and determine the different classes of plants, and varieties in each class, usually imported by florists and growers for *forcing purposes*, either for cut flowers or decoration, and to prepare an alphabetical list of the same, and further that said committee be empowered, as representatives of the National Association, to present said list for acceptance as the *free plant list* to the Board of General Appraisers of the Customs Service at New York for adoption by the custom-house appraisers of the different ports of entry throughout the country.

Mr. W. R. SMITH. That is a very important subject, and it would be of great value to the country if it was properly understood. I suggest that the proper course would be to have a committee appointed and to send the letter to Washington, where it would be carefully examined and its suggestions doubtless carried out. I move that the matter be referred to the Executive Committee, with instructions to them to appoint a part of their number to consider and act upon it as promptly as possible.

The motion of Mr. Smith was adopted without objection.

CHIEF OF HORTICULTURE.

The committee appointed to consider the advisability of the Society's recommending a man for the position of Chief of the Bureau of Horticulture of the World's Columbian Exposition reported as follows: That it is the sense of this committee that it is inexpedient for the S. A. F. to present any name for the position, but that the Society is prepared to indorse any man of high character, broad views, and good executive ability: such men, for instance, as Wm. C. Barry, Rochester, N. Y.; P. J. Berckmans, Augusta, Ga.; or J. DeBarth Shorb, California.

The report of the committee was accepted.

REVIEW OF NEW PLANTS.

The Review of New Plants, by Mr. WM. FALCONER, of Glen Cove, N. Y., was here presented, and a portion of it read by that gentleman. The full report is as follows:—

By new plants, in a horticultural sense, we mean plants new to general cultivation. These may be newly discovered or long-ago discovered species of plants now introduced to general cultivation for the first time, or garden hybrids or varieties of garden plants that have never before now been publicly distributed. Because a plant may have found its way into one or two botanical or private gardens years ago does not, in my opinion, now mar its claim to newness in our trade lists. For instance, I had, grew, and flowered *Lilium Grayi* a dozen years ago, but it is only now being sent out as a new plant. In some cases a certain variety of plant may be common enough in a limited locality, as Mrs. Degraw Rose has been for twenty-five years about Glen Cove, but unknown away from there; this then, too, I should consider eligible as a new plant to the public at large.

Any plant not in cultivation here will be a new plant to this place, no matter how common it may be in Europe or Japan; and we must extend our views still more liberally, and allow that many good old plants long grown by some of our horticulturists are quite new to several florists and other horticulturists throughout the country; and with this end in view I have deemed it inexpedient to restrict myself to absolutely new plants, that is, newly introduced species, or strictly new hybrids or garden varieties.

And to give a wide scope to this paper on new plants, I have called to my aid some of the most competent florists and horticulturists in the country, and instead of this being a paper contributed by me, it is furnished by them with merely an introduction by me; and my correspondents have used their own judgment as regards what they consider new plants to them or their customers.

There is a widespread impression that the plants suitable for florists' use are of limited number, but this is an error evident in two ways: First, our leading cut flower and furnishing florists are continuously aching for some substantial novelty in their decorations; it may be bushes of Crab Apples, or Wisterias, or Laburnum, or Yellow Broom, or a drapery of early Clematis, or a spring flower garden at Christmas; and this appeals to the grower through his pocket to anticipate the desire and demand of the decorator, and furnish him with something new, appropriate, and stunning, and in quantity. And thus it goes on year after year, and the cry forever is, "Give us something new!"

Next, that many plants interesting to amateurs are outside of the consideration of florists. This leads us at once to the query, what is a florist? In this country we understand a florist to be one who makes a business of growing garden or greenhouse plants or flowers, other than trees or shrubs, for sale, or one who makes a business of selling them. These plants may be Roses, Chrysanthemums, Moss Pinks,

Orchids, or Cactuses. Well then, if an amateur grows plants, where does he first get the plants he grows? From the florist, of course. He gets his Dracenas, his Orchids, his Nepenthes, his Ferns, his Palms, his Cactuses, his Dahlias, his Pond Lilies, his Phloxes, and all his other greenhouse and garden plants from the florist, and this shows that these plants, which are interesting to the amateur, had been staple goods with and interesting to the florist before they appealed to the amateur. And we have got to admit that there are more kinds of florists than he who grows Roses, Carnations, and Violets for the cut flower market, and he who retails them.

With little trouble or expense we can learn of the many new plants that are brought into notice every year. Each year for the past three years one of the "Bulletins of Miscellaneous Information," issued by the Royal Gardens, Kew, London, is devoted to "New Garden Plants" of the preceding year. In the issue of this year (1891), over 370 new plants are mentioned. Among these are 5 Anthuriums, 4 Begonias, 20 Cattleyas, 37 Cypripediums, 11 Dendrobiums, 5 Gladioluses (4 species and 1 hybrid), 8 Irises, 5 Lælias, 10 Masdevallias, 4 Nepenthes, 8 Odontoglossums, 2 Poppies, and so on. In this work the stress is laid upon new species of plants, true hybrids and pronounced varieties; and varieties of China Asters, Mignonette, Roses, Sweet Peas, and the like are not included.

However, these are readily obtained in condensed form in the garden annual works, for instance, "The Garden Annual Almanack," which contains a full list of the "new plants and flowers which have received certificates during the year," and "The Garden Oracle," which contains a list and brief description of the "new plants" of the year. And all the leading English horticultural weeklies, about New-Year's, contain a general review of the new plants of the outgoing season.

Among the "new garden plants and flowers of 1890," mentioned in "The Garden Oracle" for 1891, are, 5 Abutilons, 17 Amaryllises, 12 Begonias, 5 Carnations, 85 Chrysanthemums, 39 Dahlias, 12 Fuchsias, 40 Gladioluses, 12 Gloxinias, 6 Heliotropes, 10 Ivy-leaved Pelargoniums, 6 Regal Pelargoniums, 25 Zonal Pelargoniums, 5 Pentstemons, 8 Herbaceous Phloxes, 10 Pæonias, and 56 Roses, besides a good many other plants, some of which are not in general cultivation here.

In "The Garden Annual" for 1890, among the 347 certificated new plants of 1889, we find 12 Amaryllises, 11 China Asters, 26 Begonias, 11 Cattleyas, 20 Chrysanthemums, 8 Cinerarias, 5 Cypripediums, 42 Dahlias, 11 Delphiniums, 8 Dendrobiums, 6 Lælias, 6 Marigolds, 4 Odontoglossums, 7 Pæonias, 8 Pelargoniums, and 8 varieties of Siebold's Primroses.

And these do not include all of the new plants, as our florists well know who import from Continental nurseries. And too, a few good new plants find their origin in this country.

In the face of so vast a variety of new plants every year, can you wonder where our florists get so many fresh novelties every season? Indeed, the greater wonder is how they can discriminate among so great a multitude. Take Dahlias, for instance: In 1889 there were 42 new Dahlias, and next year (1890) there were 39 more; in all, in two years, 81. Now, how many of these will ever enter into general cultivation and be retained ten years hence? Probably not half a dozen; and so it is with Roses, Chrysanthemums, Geraniums, and other popular plants. And in front of all this plenty, our florists are hungering and thirsting for novelties, and searching to the uttermost ends of the earth to obtain them.

Each one of these new plants is not decidedly distinct enough to stamp it as a novelty; it isn't striking enough; it isn't improvement enough; it isn't out of the common rut enough to warrant a general disposition among the people to acquire it.

The popular and profitable novelty is the plant that is so strikingly distinct, really good, and generally useful as to appeal on sight to the people at large, for there is more money in plants for the million at a low price than in costly stock for the millionaire. A sterling novelty will not die; it will sell better the second year than the first. But after a year or two no amount of booming will keep a poor, undesirable kind of plant afloat in a profitable way. Witness the catalogues of four or five years ago, and observe how many of the "novelties" then being pushed are now dropped from the lists, and not included in the catalogues of to-day.

Of course, like our own children in our own eyes, new plants raised by ourselves may be seventh wonders in our own estimation, but other people may take a very different view of them. And here it is we so keenly feel the need of some great national horticultural society, after the manner of the Royal Horticultural Society of London, with its broad and piercing committees. Novelties of sterling merit would court their investigation, and inferior material would shun their light. A certificate of merit from such a society would mean that the plant had pronounced value, and bearing such a recommendation upon its face, it could go out into the world exultantly deserving and expecting patronage, and the people, knowing the sign, would welcome it in confidence.

Among our new plants we want rigid discrimination and selection. Take Roses or Chrysanthemums, for instance: no new variety should receive countenance from any horticultural society, unless it is better

than any other variety of its near kind. Give us no yellow Chrysanthemum of its sort of less merit than Harry E. Widener, or white than Etoile de Lyon, and the annual output of new kinds will dwindle mightily, to the benefit of all. What becomes of all of the new Geraniums that are floated on our market every year? Hosts that appear to-day are, after trial, as it were, consigned to oblivion to-morrow, deserving their fate.

See the sameness and tameness among the new Cannas that are being showered upon us here and from France! Madame Crozy, two years old, still is queen. And would it be asking too much to insist upon it that no Canna of her color and style, a whit inferior to her, should find a place in our market? 'Twould paralyze the Canna trade! And even among the aristocratic Orchids, Mr. Wm. Robinson, of North Easton, Massachusetts, anent the practice of orchidists giving different varietal names to very slightly differing flowers, writes me: "Yes, we must have something totally distinct to warrant giving varietal names; in time, however, all will find their proper level."

Orchids.

Mr. William Robinson, head gardener to F. L. Ames, Esq., Langwater, North Easton, Mass., has very kindly prepared for me the Report on New Orchids. Than Mr. Robinson, no man in the country is better qualified for this task. Mr. Ames's collection of Orchids is the most complete in America, and said to be worth about \$225,000 or \$250,000, and in the matter of excellent cultivation the plants are not surpassed in the world; and every new Orchid of merit, species, hybrid, or variety, as soon as it can be obtained, is added to this collection. Thus it will be seen that Mr. Robinson writes from personal experience.

Ærides *Savageanum*, one of the brightest of all.

Æ. Lawrenceæ and *Æ. Sanderianum* are varieties of *Æ. odoratum*, but in both the racemes are larger, so too are the blossoms, and the spots of a deeper color than in *odoratum*; indeed, *Sanderianum* is such a good grower and so showy and sweet, it deserves better acquaintance.

Calanthes now hold a prominent place in Orchid collections, and their increase, both in species and hybrids during the past few years, has been rapid.

Calanthe Regnieri and varieties of it, such as *Sanderiana*, have rosy carmine flowers much deeper than the color of those of *C. Veitchii*, and they blossom later than it. *C. Regnieri* var. *Stevensiana* has white flowers with a rose-colored blotch on the disk, and in those of *C. Regnieri* var. *Williamsii*, the petals and sepals are pencilled with carmine, and the lip is deeper with a crimson-purple blotch on disk covering the column.

C. vestita oculata gigantea. Both plant and flower are larger in all their parts than is the case with the type; the spot on the flower lip is deep orange-red. Sometimes the flower spike will reach over three feet in length. It is a fine Orchid.

Hybrid *Calanthes* are making rapid strides, and the time will come when they will become as generally grown and in as great quantity as is *C. Veitchii* to-day. The following are the most distinct: *C. bella*, a hybrid between *C. Turneri* and *C. Veitchii*; its flowers are as large as those of the best forms of *Veitchii*; sepals and petals delicate, and are suffused with white, the rose color more developed in some places than in others. *C. Sedeni*, a hybrid between *C. Veitchii* and *C. rubro-oculata*; flowers as in *Veitchii*, but of a deeper color, clear rose-carmine, with a deeper blotch surrounded with white at the base of the lip. *C. Sandhurstiana*, of deeper color than *Veitchii*; sepals and petals somewhat paler than the lip; plant of good habit. *C. lentiginosa rosea*, a hybrid between *C. Limatodes labrosa* and *C. Veitchii*; the blossoms are intermediate between the parents, but the whole flower is of a very pleasing rose color, suffused over all with deeper and brighter spots. *C. porphyrea* has flowers of about the same size and form as those of *C. lentiginosa*, but the color of both sepals and petals is carmine-purple, and the lip paler with white at the base. *C. Harrisii* is one of the purest white-flowered *Calanthes* we have got.

New *Cypripediums* are being raised so rapidly and sent out so quickly that it is difficult to keep pace with them, but I will mention a few that have recommended themselves to me. Among the *Selenepedium* hybrids are *grande*, *Schroderæ cardinale* (very deep colored), and *leuchorrhodum* (one of the finest and most delicate colored). *Wallisi* is the yellow-flowered *Selenepedium caudatum*. *Cypripedium Hookeræ voluteanum* and *C. Siamense* are of little importance; but *C. Sanderianum*, *C. Elliottianum*, and *C. Rothschildianum* are grand acquisitions: all of them, however, have been noticed before now, and sold in the auction-rooms. Hybrid *Cypripediums* of recent introduction: *C. Numa*, a hybrid between *C. Lawrenceanum* and *C. Stonei*; *C. Niobe*, between *C. Spicerianum* and *C. Fairieanum*; *C. H. Ballantine*, between *C. purpuratum* and *C. Fairieanum*; *C. Lathamianum*, between *C. villosum* and *C. Spicerianum*; *C. Calypso*, between *C. Boxalli* and *C. Spicerianum*; *C. Godseffianum*, *C. hirsutissimum* x *C. Boxalli*; *C. T. B. Haywood*, *C. Spicerianum* x *C. Drurii*; *C. Medeia*, *C. hirsutissimum* x *C. Spicerianum*; *C. Creon*, *C. ænanthum superbum* x *C. Harrisianum superbum*. The above I consider the best hybrid *Cypripediums* sent out within the last few years. Of course there are others which have much to commend them, but they are too numerous to enumerate here. Of the older varieties for general pur-

poses, *C. Veitchii* is the finest: *C. Curtisi*, *C. ciliolare*, *C. tonsum*, *C. Lawrenceanum*, *C. Harrisianum* *superbum*, *C. vexillarium*, *C. Leeaanum* *superbum*, *C. Arthurianum*, *C. caudatum*, *C. Chantini*, *C. villosum*, *C. hirsutissimum*, *C. Morganiae*, *C. Stonei*, *C. ænanthum* *superbum*, *C. barbatum*, *C. niveum*, and *C. Spicerianum* embrace about the best.

C. Lawrenceanum var. *Hycanum* has flowers shaped like those of *Lawrenceanum*, but the color is green with a beautiful white margin and pea green ground over the whole flower.

Cypripedium insigne var. *Sanderæ* is the yellow-flowered *C. insigne* and unique. I have seen the figure of the flower, but not the flower itself; it must be fine, however, for a plant of one growth, when it first flowered, brought about seventy-five guineas in the auction-rooms in London. Mr. Ames's plant has one growth of four leaves, for which he paid a high price.

The variety of *C. insigne*, called Philbreck's *Chantini*, for size, form, color, and spots is not surpassed by any other variety extant.

During the last few years large quantities of *Cypripedium insigne* have been imported from their native country, and as all are seedlings, we must expect to find in them more or less variation; but this does not warrant us in giving distinct varietal names to only very slightly different seedling forms. Indeed, as seedling *Cypripediums* will soon be coming in like *Gloxinias* or *Begonias*, exceeding great care should be exercised in naming them, else we may get hopelessly mixed in their nomenclature. In the case of *C. Amesianum*, *C. Thetis*, and *C. Measuresianum*, they are so much alike that they should all be known as *Measuresianum*; and I, too, might instance *C. Galatea*, *C. oreste*, and *C. Electra*, which are about the same as *C. (Enanthum)*. In time, however, all will find their proper place.

Cattleyas. Many new ones, hybrids and varieties, have recently been sent out. Among the most noticeable are: *Cattleya Parthenia*, a hybrid between *C. Wagneri* and *C. calumnata*; its flowers are large, delicate pink, spotted over all with pale lilac. *Cattleya Canhamiæ*, a cross between *Lælia purpurata* and *C. Mossiæ*. The plant is of intermediate form, with flowers in shape equally between those of the parents; sepals and petals light pink; lip much frilled, and a full yellow throat lined with a network of light purple passing through the yellow. *Cattleya fausta*, a hybrid between *C. Loddigesii* and *C. exoniensis*, has been raised twenty years. *Cattleya leucoglossa*, between *C. Harrisoniæ* and *Lælia elegans*, a beautiful white-lipped and highly esteemed Orchid. *Cattleya Warocqueana* is a grand autumn-blooming species of the *C. labiata* type. *Cattleya Bowringiana* is a very desirable species blooming from November till Christmas; we

have had it with twenty blossoms on a spike. *Cattleya Shroederæ* is another *Cattleya* of recent introduction, but I believe it is only a variety of *C. Trianae*: there is also an exceedingly desirable white-flowered variety of it (*C. Shroederæ alba*) which blooms in March and April. *Cattleya intermedia* var. *alba* is very fine but scarce. *Cattleya Hardyana*, a natural hybrid between *C. Dowiana* and *C. gigas*, is exactly intermediate between the two, but in the color of its sepals and petals it leans more to *C. gigas*: there are several forms of it, all differing in their color-markings and all very fine.

Cymbidium Loise Chauviere is a new species introduced about two years ago, and the only scarlet-flowered *Cymbidium* yet known. It is of good habit and makes a fine basket plant: very rare. *Cymbidium Mandaiannum* is a new variety of *C. Lowianum*, introduced by Pitcher Manda, and named after Mr. Manda: flowers yellow with white throat. One of the finest and most distinct Orchids of recent introduction; also named *C. Lowiana concolor*.

Dendrobium nobile var. *nobilius* is the most richly colored variety of this species, and, perhaps, the largest: the whole flower is of a deep amethyst purple, the sepals and petals being paler at their base, and the disk of the lip is narrow, surrounded by a white zone.

Dendrobium nobile var. *elegans* has beautifully shaped flowers, about as large as those of *nobilius*, and the petals are a little broader: the zone which surrounds the narrow disk is pale yellow, and the color at the base of the petals is paler than in *nobilius*. Among the many forms recently introduced, some have been distributed, incorrectly, under the above names. *D. nobile* var. *Arnoldianum* was recently introduced by Mr. I. Forstermann, of Newtown, N. Y., and named in compliment to Mr. Hicks Arnold, of New York City. It is a fine variety. The disk of lip and basal half of lower sepals maroon colored. A variety known as the Burford Lodge var. has the same peculiarity in markings. *D. nobile* var. *album* has white sepals and petals with a pale apical blotch, and the disk of lip is almost black maroon-purple. *D. nobile* var. *virginale* (a provisional name given to a variety Mr. Ames acquired from Mr. David Allan, of Mount Auburn, Mass.) is a pure white form of *nobile*, without any other color in its sepals or petals, and only a very pale purple disk: has medium-sized flowers. A beautiful variety.

Dendrobium Chryseum, a species with deep yellow, almost orange, flowers with a few faint crimson lines on side lobe of lip. It is a new and very distinct Orchid, somewhat in the way of *D. fimbriatum*: supposed to be a native of Assam.

Dendrobium Wardianum var. *Schroederæ* is to *Wardianum* what *nobilius* is to *nobile*. The whole flower is rich maroon-purple on the

outside; petals and upper sepals broad, white at the base; basal sepal white with a deep margin of maroon-purple; rich orange disk with rich maroon blotch on each side. One of the most brilliant colored forms imaginable.

Of hybrid *Dendrobiums* there are many, and all worthy of cultivation. Among the most showy are *D. Ainsworthii*, *D. Leechianum*, and *D. splendidissimum grandiflorum*, hybrids of the same parentage, and all good. *D. chrysodiscus*, by Sir Trevor Lawrence, and obtained from *D. Ainsworthii* crossed with *D. Findlayanum*; sepals and petals white with purple apicular blotch; lip pale yellow with orange disk, at the base of which is a purple blotch. A fine Orchid. *D. Cybele* is a hybrid raised by Seden from *D. Findlayanum* crossed with *D. nobile*, and is a bold and beautiful flower. Sepals and petals white, slightly tipped with rose; lip white, slightly suffused with pale yellow, and has a crimson blotch at the base. The flower stalks are very long, making it a desirable Orchid for cut flower work. *D. enosmum leucopterum*, a very beautiful Orchid, is between *D. Endocharis* and *D. nobile*; sepals and petals and lip are pure white, the disk of lip Indian purple. There are two more fine forms of *D. enosmum*, but the one just described is the finest. *D. Schneiderianum*, a grand hybrid, was obtained from *D. Findlayanum* crossed with *D. aureum*; flowers large; sepals and petals white, deeply tipped with lilac-purple; lip orange-yellow with a pubescent disk, from which radiate deep purple lines, the whole surrounded by a white zone. A free-flowering plant of fine habit and easy cultivation, and its flowers are large, showy, and long lasting. We consider it one of the finest of all Orchids. *D. Aspasia*, a Veitchian hybrid between *D. Wardianum* and *D. aureum*. *D. Venus*, a hybrid between *D. Falconeri* and *D. nobile*; of fine habit; looks like a gigantic *D. Falconeri*. Sent out by Sander.

Oncidium Mautini, supposed natural hybrid between *O. Marshalli* and *O. Forbesi*; in appearance, however, it rather favors *O. curlum*, though with larger labellum, and has about the same coloration, but the spotting and marking are brighter. *O. splendidum* was introduced from Guatemala in 1862, but was so rare that until it was rediscovered three years ago there were only two or three plants of it in cultivation. It is a free-blooming, easily grown species, with a large golden-yellow lip; blooms on erect, branching spikes, and is one of the finest *Oncidiums* in cultivation.

HYBRID CYPRIPEDIUMS. — BY PITCHER & MANDA, THE RAISERS.

Cypripedium Arnoldianum (*Veitchii* x *concolor*). Leaves two inches wide, light green tassellated with dark green; stem dark brown with white down. Flower large, four inches across; dorsal sepal roundish.

slightly recurved, lemon yellow at base and extending upward; veins purple, shading over the ground color; lower sepal same in color, only the veins are more pronounced. Petals two inches long, broad, inner portion lemon color, outer part washed with vinous purple; and three fourths of the inner surface is covered with crimson spots. Lip long with narrow opening, lemon yellow at base and vinous purple veins and dots in the upper part; column bright green, staminole slightly horseshoe shaped and lemon yellow with purple border.

Cypripedium Pavoninum inversum (*venustum* x *Boxallii*) has broader leaves than in *C. Pavoninum*, but the flower markings and shape about the same as in that species. The dorsal petal is apple green shaded with blackish brown and bordered with white; lower sepal green; petals green, shaded, lined and spotted in the upper portion with dark brown; lip light green with darker green veins; whole flower shining.

Cypripedium media superbum (*hirtutissimum superbum* x *Spicerianum*) has leaves intermediate between the parents. Stem thin, flowers large. Dorsal sepal broad, oblicolor, reflexed on the sides and recurved on top, white with vinous middle vein, and shaded with green and purple at the base; lower sepal small, pale green; petals undulated and slightly twisted at the ends, ground color green shaded with purple and spotted and striped with dark purple spots; lip oblong, green, shaded with purplish brown; staminole violet purple with white edges.

Cypripedium Brownii (*leucorrhodum* x *magniflorum*) has larger leaves than, but similar leaves and growth to, *C. leucorrhodum*. Dorsal sepal incurving, white, shaded with rose, and green blotch at base; lower sepal large, white; petals broad, flat, with rosy ends; lip large, roundish, rosy purple with a greenish cast.

And as new varieties of *Cypripedium insigne* the above firm mention *Amesianum*, *Arnoldianum*, *Brownii*, *Cowperianum*, *Cuttingianum*, *Eyerammanum*, *Gilmoreanum*, *Mandevillianum* and *nitens*; also, *C. Lawrenceanum* var. *pictum*.

SOME NEW ORCHIDS. — BY MR. GEORGE SAVAGE, ROCHESTER, N. Y.

Grammatophyllum Measursianum. — A magnificent plant making spikes of flowers three and four feet in length, with about forty flowers on each spike, about the same color as *G. Ellisii*, but very much freer flowering than that species.

Fanda Amesiana. — A beautiful new winter-blooming Orchid, almost as large as a *Phalenopsis* flower, white with narrow lip, and a very free-flowering plant; a fine thing.

Phalanopsis Luddemaniana var. *hieroglyphica*. — A gem amongst *Phalenopsis*.

Odontoglossum Cecelia. — An extra fine form of *O. crispum*, very distinct.

Spathoglottis Kimballiana. — A free-growing terrestrial plant, with large yellow flowers.

Epidendrum Endresii. — Very small, white flowering, but pretty and rare.

Saccolabium Caleste. — One of the most lovely Orchids in cultivation, of a beautiful light blue color.

PALMS AND FERNS.

In the matter of new Palms and new Ferns, Mr. Charles D. Ball of Holmesburg, Philadelphia, who makes a specialty of Palms and Ferns for market, says: "I do not handle *new* plants. My business is in good old standard kinds most useful for florists' work. I sell to florists only. New or scarce Palms or Ferns do not suit my business. Florists buy only such well-known kinds as are most hardy, plenty, and cheap, such as *Areca lutescens*, *Latania Borbonica*, the *Kentias*, *Phoenix*, etc.; also such Ferns as are easily grown in large quantity from spores. Besides, you may look over any collection of Palms here or elsewhere, and what can we find that is new? I think very few. We know so well the 'merits' of the scarce kinds, that few care to experiment with such. Something was expected from *Areca (?) Sanderiana*: it was thought it would prove a useful Palm for decorative purposes, but the opinion now is that it is of no value. This is decidedly my opinion at least.

"Regarding Ferns, some years ago I yearly imported many of the newer kinds, but found so few of any real value that I gave it up as a bad job. Whenever I see anything good now, I will buy, but when I buy it is no longer *new*."

"I might mention some few Ferns, not really new, yet somewhat scarce still, that I consider very good: —

"*Pteris cretica* var. *nobilis*, a beautiful crested form of the *cretica* type.

"*Pteris Mayii*, *Pteris cretica* var. *magnifica*, *Pteris tremula* var. *crispa*, *Pteris Victoria* (new), *Nephrolepis rufescens* var. *tripinnatifida*."

NEW HARDY ROSES. — BY WM. H. SPOONER, PRESIDENT OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

My observations upon the Rose are chiefly with a view to their adaptation for outdoor garden purposes.

Augustine Guinaisseau seems to me an acquisition to the *La France* family, and likely to prove a valuable addition to this class of Roses: the color is a pale rose or cream, and apparently as free in flower as the

La France, the plant making a similar growth. We have now in this group a trio of beautiful flowers, viz.:—

La France, Duchess of Albany, and the above, that will undoubtedly prove of great value for summer bedding purposes.

Gustave Piganeau, flower of largest size; color bright carmine lake; the habit seems to be good, firm petal, and confidently expect this Rose will prove an acquisition; the flower is similar to the Countess of Oxford.

Jeanne Dickson.—This is a striking flower of a bright, cheerful color, rosy pink. From a single bloom, I am favorably impressed in its favor. It is another addition to the scentless class of Roses, and, like the Baroness, its strength will make it a fine exhibition Rose.

Lady Arthur Hill is another of Dickson's new Roses. The form of the flower is rarely equalled; the color rosy lilac, variable; appears to be a free bloomer.

NEW ROSES. — BY MR. ERNST ASMUS, W. HOBOKEN, N. J.

I tried some of the new French Roses last winter, and, as usual, found most of them worthless. The French raisers send out glowing descriptions of their new Roses every fall, and somehow or other always succeed in luring us to take their bait. Yes, we bite and repent, and almost invariably declare it will be the last time! But the very next fall we take the bait again.

Out of nine varieties of teas, I found only one that was worth retaining for another year's trial. Here are the names of the ones I found to be no good: *Souvenir de Clairvaux*, *Comtesse de Witzthum*, *Comtesse Eva de Starenburg*, *Jaune Naboumand*, *Maurice Bauvier*, *Princesse Sarsina*, *Souv. de Lady Ashburton* and *Souv. de Mme. Sablayrolles* (?). *Eliza Fugier*, a white flower somewhat resembling *Niphetos*, but stiffer stemmed, was the only one I kept to try again.

Among the hybrid teas sent out I imported four kinds, and have concluded to try three of them for another year. These are *Mme. Caroline Testout*, a large pink Rose, of good, firm petals and stiff stem, but rather too single; *Triomphe de Pernet Pere*, a sweet red Rose, but with too much purple in it for a good cut flower; it is in the form of a *Jacqueminot*, and would have been a good Rose did it have a better color; and *Marquise de Salisbury*, which, if it were of larger size, would have made an elegant Rose. It is a free bloomer, and its flowers are brilliant velvety red, but entirely too small.

ROSES. — BY THE DINGEE & CONARD COMPANY.

Etoile de Lyon is showing up well in the open ground. This beautiful tea succeeds better outside than under glass, and is one of the hardiest of the tea class.

Mme. Agatha Nabounaud is one of the finest bedding Roses and a good grower; color, flesh-tinted rose; buds large and fine.

Duchess Marie Salviatte is a beautiful new tea Rose and a free grower and bloomer; color, orange yellow, showing red.

Mme. Pierre Guillot is probably the finest of the new teas, and is now blooming fine with us in the open ground. The color of its flowers is richer than *Mme. Watteville*.

Snowflake and Lady Lambert. — Wish some one would tell us the difference between them, also between *Dinsmore* and *Madame Charles Wood*.

Mrs. Degraw and Henri Plantier. — Wish also some one would tell us the difference between these. (As regards *Mrs. Degraw*: *Mr. Wm. Burgess*, formerly of *Glen Cove, L. I.*, and now of *Brooklyn*, and well known as of *Maréchal Niel* fame, told me that he raised this Rose from seed perhaps thirty years ago, and named it in compliment to an ex-president of the *New York Horticultural Society*. Anyway, this Rose has been grown in quantity about *Glen Cove* for twenty years or more, and generally known as *Mrs. Degraw* or the *Burgess Rose*, and as such *Mr. Burgess* exhibited it year after year for many years at the *Queens County, N. Y.*, agricultural fairs at *Mineola*. And many rosarians, *John N. May* among them, who have seen the Rose here and to whom I sent plants of it, assured me that it was quite distinct from any other Rose. Notwithstanding all this, however, I claim nothing regarding its distinctness. — *WM. FALCONER.*)

NEW ROSES. — *MR. J. C. VAUGHAN, CHICAGO, REPORTS:*

Mlle. Augustine Guinoiscau (White La France), H. T. — A sport from *La France* and similar to it except in color, which is white, faintly flushed with pale pink. In masses or bunches the flowers are admired by every one.

Kaiser Frederick, Tea. — *Gloire de Dijon* type, producing freely large, very double flowers, with the same coloring as in *Malmaison*. We consider this a decided break in climbing teas, the yellowish salmon tinge common to this type being entirely eliminated.

Climbing Perle and *Climbing Niphotos*, both genuine climbers, throw up strong, vigorous shoots eight to ten feet in length. The *Gulf and Pacific States* will plant these Roses by the thousand in time.

Madelaine d'Aoust, Tea. — Coppery yellow, petals heavily edged with white; buds, medium size; moderate grower; excellent bedding Rose; distinct.

Mme. Pierre Guillot, Tea. — Creamy white, petals edged with rose; buds large and of beautiful style. Compared with *Mme. de Watteville*,

color is similar; buds larger, more double; every shoot bears a bud, and has not the Watteville habit of throwing blind wood.

Clotilde Souper, Polyantha Tea. — One of the most valuable Roses of recent introduction. It has endured 10° below zero planted in the open ground. Excellent for sale as a pot plant.

Very New Roses.

Waban. — A sport from Catherine Mernet. Flowers a very deep shade of rose, with a decided glint of red on the outer petals; in an even temperature of 55° to 58° it produces fine buds; young growths and foliage darker than in the parent, but otherwise it is exactly similar. Our experience with it is limited to the growth and behavior of ten 4-inch pot plants, bedded out in January last.

In new European sorts our experience is limited to a few months' growth under glass. There seems to be some good Roses among them.

Mme. Elie Lambert may be described as a medium sized Marie Guillot, pure white with an edge of rose on the inner petals, very double, free blooming, and a good grower; distinct.

Eliza Eugier. — Style of bud and color very similar to Niphetos. Every shoot produces a bud. Growth very vigorous, much more so than in Niphetos. We advise a trial of this for forcing.

Henri Brichard, H. Tea. — Produces very large, globular buds, in color similar to Captain Christy, with perhaps a deeper centre; appears to be thoroughly distinct, quite different from any in this section; good grower and free bloomer.

Triumph de Perret Perc, H. T. — Claimed to be a cross between General Jacqueminot, H. P., and tea rose Desire; buds of fair size, style of Jacqueminot; fragrant; color, cherry red; constant bloomer; good vigorous grower. We are watching this with considerable interest, and advise a trial soon as plants are offered.

ROSE NOVELTIES. — BY MR. E. G. HILL, RICHMOND, IND.

Mme. Pierre Guillot, Tea. — A magnificent and distinct new Rose, equally good for forcing or for open ground bedding. This Rose will rank with the finest of the teas.

J. B. Varrone, Tea. — This variety may be classed as intermediate between Countess La Barthe and the variety Luciole. It combines the free-flowering qualities of the former with the rich coloring of the latter. A most distinct and valuable new Rose.

Miss Marston, Tea. — A large, open-shaped flower when fully developed, of the general build and style of Mernet. A promising new Rose. Will probably force well.

Mme. Marthe du Bourg, Tea. — A distinct shaped bud of considerable length, somewhat after the style of *Niphetos* in form, but differing in color and texture. This Rose blooms well, forces readily, and is of good, sturdy habit.

Other new varieties of the tea section may be mentioned briefly. *Souv. de Dr. Passot*, of very brilliant color, but too thin and scanty in petals, and not large enough. *Souv. F. Gaulain*, a fine, strong, free flowering Rose, quite double, and of good build, but with decided purplish cast.

Jeanne Guillaumetz. — Of beautiful apricot color, but scarcely large enough in bud; very showy when fully blown, and quite free.

Gustave Nadaud. — A long-pointed bud of bright carmine color, shaded with yellow, lacking in substance, however, and also in distinctness from other varieties.

May Rivers and *Mme. Olga* are both very similar to the old variety *Ophelia*, and not distinct enough from *Cornelia Cook*.

Georges Farber, *Mlle. G. Godard*, *Mme. A. Turle*, *Mlle. M. Fabisch*, *Mlle. M. Thezilat*, and *Marquis de Forctan* are novelties that should not have been put on the market, as they are of no value to any one.

Augustine Guinoisseau (White La France), H. T. — This variety is admired by many and condemned by not a few as lacking in distinctness of color; it is not white, but it is quite distinct from both *Duchess of Albany* and *La France*. In every respect but color it is a veritable *La France*, and worthy of culture.

Bona Weillshott, H. T. — Of good growth and great freedom of bloom, but it is lacking both in color and form; occasionally it is quite fine, but so few good blooms are produced that it cannot be recommended.

La France of '89 is a most distinct and fine Rose. It, however, is not "perpetual" in its bloom, like the hybrid teas, but is semi-climbing in habit, and of vigorous constitution. It promises well in form, size, and rich coloring.

Mme. Hortense Montefiore, H. T. — Weak in growth, flower lacking in size, generally undesirable.

Mme. Zoé Colloque, H. T. — Of the *La France* type, with a more distinct combination of colors than in most others of this type.

Hybrid Perpetuals.

Gustave Piganeau. — A most distinct and valuable H. P. on account of its fine form, large size, and good color. These points, together with its great freedom of bloom, place it among the finest of its class.

Gloire de Ex Bruxelles. — A very dark crimson-maroon colored Rose with scarlet shadings. Very full and double and free and fine in habit.

Oscar II, Roi de Suede. — A very pronounced and distinct H. P. Color cinnamon crimson, with maroon shadings; of strong growth and bearing large, handsome flowers.

Lady Arthur Hill, James Brownlow, Martin Cahuzac, and Maurice Vilmarin are Roses of promise in the H. P. section, and can be commended for trial.

The above hybrids are the most noted ones out of the many sent out last year, but the judging has all been done from blooms produced under glass.

Pink Rover. — A Bourbon of the general type and color of Malmaison, but somewhat darker in its shadings. This will doubtless prove a useful variety.

NEW GERANIUMS. — BY MR. E. G. HILL, RICHMOND, IND.

Beaute Poiterine (Bruant race). — A charming dwarf-growing Geranium with immense semi-double salmon flowers. A valuable introduction.

Mrs. E. G. Hill (Bruant race). — Somewhat similar to the above in general character, but of a different and distinct shade of salmon; very sturdy and dwarf. A variety of decided merit.

Copernic. — Has round single florets of that peculiar shade of color found in Poete Nationale. Unsurpassed as a market pot variety.

Montesquieu. — Beautiful lavender-pink; very dwarf in growth, throwing large bold trusses of perfectly formed double florets. A decided advance in this line of color.

Jeanne d'Arc. — A fine fancy variety of the Souvenir de Mirande type, from which it was seeded. It is creamy white with rosy scarlet border on each petal. A fine acquisition. (Mr. J. C. Vaughan also has a very good word for this Geranium. — W. F.)

M. V. Noulens. — Another of the Mirande type and quite the largest, finest, and best colored in the section. It is of value to all who need a first-class pot variety.

Beauty of Kent. — Perhaps the largest circular-shaped flower in the family; the color, texture, and veining, combined with its dwarf habit and nicely zoned foliage, make it a pattern single variety.

Jacques Collot is slightly larger than Mirande, but is not sufficiently distinct to warrant its continuance on the lists.

Buffalo Bill. — Produces immense spherical trusses of semi-double flowers; color, white shaded blush. A good bedding variety.

Ivy Geraniums.

Sour. Chas. Turner is larger and brighter in color than the grand old variety, Count H. de Choiseul. This is a novelty of exceptional merit and every way worthy of extended culture.

Mme. Crozy is quite remarkable as showing so plainly the cross between the ivy and zonal families. The flower is semi-double, quite large, and very intense scarlet, and the leaf has the form and color of the zonals and the texture of the ivies. Destined to be very useful.

NEW GERANIUMS. — BY MR. A. P. SIMMONS, GENEVA, OHIO.

These are some of the new varieties which have been thoroughly tested by us, and we have only mentioned such varieties as have proved meritorious and worthy of a place among the good new plants. You need not have any fear to recommend any of the varieties mentioned.

Bruant Type.

Mme. Mulnard. — Soft red, veined darker, with white centre, raised by Delesale.

Mme. Massage de Lourdes. — Raised by Bruant. Beautiful salmon, flesh-color, semi-double.

Mme. du Lac. — Clear rose color, with upper petals marked pure white. The best rose-colored variety of the type raised by Bruant.

Mrs. A. Blanc. — Very large trusses; color, apricot, veined red.

Mons. Louis Faqs. — Semi-double clear orange scarlet; habit of plant the same as the well-known variety Heteranthe. An excellent bedder.

Mlle Strub. — An excellent variety, raised by Hoste. Soft salmon, with rose border.

Geraniums. — Double.

Montesquieu. — One of the most beautiful new varieties sent out for some time; immense sized trusses of beautiful rosy mauve, shaded lilac.

Buffalo Bill. — Very large trusses; creamy white, marbled with rose.

Wilhelm Pfitzer. — Very bright apricot color. The very best of the color ever sent out.

Ruy Blas. — One of the grandest varieties ever raised; trusses of remarkable size; a very bright salmon, with peach-colored border. This variety reflects great credit on Mons. Lemoine, the originator. The above four varieties have been introduced by Lemoine.

Mme. Agne de La Cherreliere. — An excellent pure white variety, from Mons. Bruant. By far the best white for pot culture, and also a very good bedding variety.

Mme. S. Deseglise. — Clear rose, marked white, extra fine.

Gloire de Lille. — Semi-double, currant red, shaded vermilion, with white eye; very free flowering.

Josephine Gerbeaux. — The best new variety, sent out last year by Mr. Gerbeaux: trusses of immense size; plant of very free-flowering habit; color entirely distinct, centre of flowers cherry, shading to rosy lilac at the borders.

Dr. Audiquier. — Very large trusses, salmon, with bronze shadings; good bedder.

Dr. Guyon. — Very soft rose, tinted violet, with white centre.

Josephine Soulayr. — Sausal, or deep red. Raised by Hoste.

Marquis Felix d'Albert. — An excellent variety, on the style of the good old variety, Peter Henderson.

Geraniums. — *Single.*

Copernic. — Rose and carmine, with white centre.

M. Poirier. — Carmine and violet color; very large trusses. An extra fine winter-flowering variety.

Athlete. — The finest single scarlet variety ever offered.

Admiration. — Pure white, with rose-colored centre.

Mme. La Bayle. — Pure rose.

Comtesse de Cornulier. — Large pure white border; centre rose.

Mme. le Gras Lucaille. — The very best of the yellowish orange colored varieties.

Panache de Nancy. — Salmon, nicely striped with pure white. Good for pot culture.

Jeanne d'Arc. — A new variety, of the Souv. de Mirande type, being darker and brighter in color. This is the best of the type, and will be sent out in this country this coming season.

NEW FUCHSIAS. — BY MR. A. P. SIMMONS.

Molesworth. — Very free blanching double-white variety, from England; of the style of Storm King, but stronger grower.

Abbe Garnier. — The best double purple variety we have seen, having very large flowers and being early and free flowering. Color, violet blue with rose markings.

Jupiter. — Violet blue, large, fine formed flowers, extra fine.

Countess of Aberdeen. — Described by Mr. E. G. Hill.

Ernest Renan. — Very early single variety; tube and sepals white, corolla rose color.

Gem of Larrington. — Sepals white, corolla single, carmine tinted violet: early and free.

NEW FUCHSIAS. — BY MR. E. G. HILL.

Out of a multitude of new varieties only a very few possess points of merit sufficient to give them a place with Phenomenal and Mrs. E. G. Hill.

Countess of Aberdeen is worthy of notice on account of its approaching so near a pure white in color. When grown in shade, both sepals and corolla are absolutely pure white, but in sunshine it "pinks" slightly. This is a fine novelty, and will probably prove the forerunner of a race of distinct colored Fuchsias.

Ulysee Trellat has a somewhat conical corolla, large and pure white beautifully shaded rose: sepals deep crimson. Of nice habit and very free flowering: an excellent variety.

I have selected only the very finest of the introductions of last year, and would say that there are novelties that possess many other points of merit that must recommend them for certain purposes, while there are large numbers of others which should never have been introduced, because they are inferior to existing sorts.

NEW PANSIES. — BY MR. DENYS ZIRNGIEBEL, OF NEEDHAM, MASS.

There are good old English and Scotch strains that the German seedsman and florists have got hold of and subdivided into ever so many colors and varieties, but they practically remain the same thing, and I do not see that any improvement has been made in them, except in the catalogues by rechristening them.

A really new strain is the Trimardeaux, originated by a florist near Paris, France, but it has been greatly improved since then. These Pansies are very large in all their proportions, flowers and foliage, and, too, very hardy, standing well both extremes of heat and cold, and they give general satisfaction all over the country.

Another new strain, also of French origin, is the Odier or five-spotted varieties which of late years have been greatly improved on by the well-known specialists, Cassier and Bugnot, the latter especially introducing new shades of color, and flowers which would have been thought impossible a few years ago. These last strains, however, are by no means as hardy as other strains, owing, I suppose, to closer breeding.

These two races are the only really new varieties that have been introduced within the past few years, and that are, in my opinion, of any merit, and I have come to this conclusion after having tried, within the past five years, everything of note in the Pansy line.

AZALEAS FOR FORCING. — BY MR. JAMES DEAN, BAY RIDGE, L. I., N. Y.

The best of the Azaleas that I have imported within the past two years are: —

Azalea Veranoana. — A magnificent, large, double flower of a rich rosy pink color, broadly margined with white, and a carmine blotch. It is very distinct and free flowering, and it forces well; indeed, it is one of the best Azaleas in cultivation to-day.

Azalea Imperatrix Victoria. — A splendid variety, and perhaps the most beautiful of all the double-flowering Azaleas; flowers of a most beautiful shade of rosy pink banded with pure white. The plant requires careful attention during the hot summer months, or the foliage will get brown and drop.

Azalea Madame Louis Verano. — A most distinct variety; flowers pure white, striped and spotted carnation-like with rosy incarnate. A first-class Azalea.

Azalea Triumpha de Mont St. Anne. — A fine Azalea, with very large double flowers of a clear rose color with pure white ribbon; bright carmine spot on upper segment.

The best of the older varieties of Azaleas are Madame Vandereruyzen, Simon Mardner, Empress of India, Emperor of Brazil, Bernard Andrea alba, Sacountala (if Easter is late), and Deutsche Perle (if Easter is early).

AQUATICS. — BY MR. F. D. STURTEVANT, BORDENTOWN, N. J.

Nymphaea Marliacea chromatella. — This variety deserves unstinted praise. The petals are of a delicate yellow color, and the stamens deep yellow; and the flowers are of fine form and fragrant, and produced continuously from early summer till fall, long after *N. odorata* has ceased to bloom. It is of the easiest culture and perfectly hardy.

Nymphaea Marliacea var. rosea. — Flowers pink, somewhat lighter in color than those of *N. odorata* var. *rosea*. Have grown it for two or three years.

Nymphaea Marliacea var. carnea. — Flowers delicate flesh color. Both this variety and the last named one bear fine flowers for a long period, and both are hardy.

Eichornia (Pontederia) azurea I introduced in 1890. In habit it is quite distinct from *E. crassipes*, as it has a creeping stem which rambles in shallow water as a verbena does on land.

Limnanthemum Indicum. — Though not new in Europe, it is so here. Its white flowers are about the size of a silver quarter to half dollar, and delicately feathered on the entire upper surface, making

them resemble snowflakes. The plant flowers freely all summer, and is easily wintered under glass.

Victoria Randi is the name now given to the new variety of *Victoria regia*.

SOME NYMPHEAS. — BY WILLIAM TRICKER, STATEN ISLAND, N. Y.

Nymphaea Mexicana. — I have grown this species side by side with *N. flava* during the present season: and while its habit of growth, size of leaves, and color of flowers show close affinity to *N. flava*, the rhizome is different, being smaller and smooth tuberous rooted. The blossoms are also larger and more abundant than those of *N. flava*, and they appear earlier in summer and last later in fall. With *N. flava* I find it necessary to pick off its runners to induce it to bloom early: but not so with *N. Mexicana*, as its runners will flower freely early in the season, as well as the parent plant. Give it ample space and good soil.

Nymphaea odorata. — Balmson's variety is the finest of all the odorata type, and a great acquisition. It is, apparently, a hybrid between *N. odorata rosea* and *N. alba candidissima*, resembling odorata in habit of growth and rhizome, but the leaves are larger and of a deeper bronzy red in a young state. The flowers are as large as those of *N. candidissima*, very fragrant, and of an exquisite shade of salmon pink, deeper at base of petal, and with age changing to blush: and they are produced very freely till frost.

CHRYSANTHEMUMS. — MR. EDWIN LONSDALE, SECRETARY OF THE NATIONAL CHRYSANTHEMUM SOCIETY, SENDS ME THIS.

The following are the best new Chrysanthemums which came under my notice last November, and I believe were distributed for the first time this year: —

Louis Bahner. — (P. Henderson & Co., imported.) Light purple, hairy like Mrs. Alpheus Hardy. Plant very vigorous.

Mermaid. — (Dorner.) Delicate pink: very good.

Frank Thomson (not Mrs. Frank Thompson). — (Graham.) White, shaded with delicate pink. Vigorous.

Mrs. Isaac D. Sailer. — (Harris.) Silvery pink. Winner of the "Sailer Prize" at Philadelphia last November.

Mrs. J. D. Whilldin. — (Harris.) Light yellow. Winner of the "Whilldin Prize" at Philadelphia.

Eldorado. — (Monahan.) Deep yellow: incurved broad petals.

Mrs. D. D. L. Farson. — (Sent out by Spaulding.) Rich silvery pink.

John Firth. — (Spaulding.) Soft pink.

Lily Bates. — (Spaulding.) Bright pink.

Anna M. Weybrecht. — (E. A. Wood.) Pure white; Chinese form.

Target. — (Surman.) Bright crimson, similar to *Cullingfordii* or *Tokio*. Exhibited in Philadelphia under the name of *Shenandoah*.

Yonitza. — (N. Smith & Son.) White Chinese; distinct.

Mrs. H. A. Pennock. — (Harris.) Might be described as a yellow-violet Rose.

Beacon. — (Fewkes.) Creamy white; an improvement on *Mrs. Langtry*. Winner of silver medal at Boston.

Waban. — (Fewkes.) Pink. A very much improved *Robert Crawford, Jr.*

Mrs. John Westcott. — (Harris.) Creamy white, shaded with delicate pink; very large.

Flora Hill. — (Graham.) White. Extra fine variety.

Mrs. E. W. Wood. — (Wood.) Rich dark purple. Very distinct.

James H. Freeland. — (Wood.) Blush; petals broad, flower large. Beautiful.

Pitcher & Manda name *Dr. Chas. Brigham*, white; *John Dyer*, chrome yellow; *W. W. Lunt*, lemon yellow; *Rohallion*, chrome yellow; *John Lane*, pink tipped with yellow; *Etoile de Lyon*, white; *Harry E. Widener*, yellow; *Shasta*, white; and *Mrs. Grace Hill*, blush. The first three named are new this year, the rest are considered the best of the introductions of the past two years.

BULBOUS PLANTS. — BY E. V. HALLOCK, QUEENS, N. Y.

Amaryllises are gaining favor. *Meriden*, *Tendresse*, and *Williamsii* are fine sorts.

Anomalleca cruenta, known in the trade as *Scarlet Freesia*, from the Cape of Good Hope, has sprays of scarlet flowers. Starts slower and blooms later than *Freesia*.

Brodiaeas are Californian bulbs, quite popular with amateurs. With a winter mulching they are hardy here.

Calochortuses are decidedly good for dealer and consumer. Easy to grow, easy to flower, and bloom well indoors or outside; beautiful and lasting. I think *C. Gunnisoni* is the best of all of them.

Chionodoxa Luciliae is very beautiful and has become a standard bulb. *C. Sardensis* is newer, smaller, and of a darker blue color.

Crinum Kirkii, from Zanzibar. Bulb, plant, spike and truss of flowers very large. Should be grown in the South until the bulbs reach a large size.

Richardia Ethiopica var. compacta, known as the dwarf *Calla*. Is dwarfer and more floriferous than the type, and, too, the flowers are smaller, but of fine shape.

Zephyranthes Andersoni, known in the trade as Habranthus. Is yellow flowered and a fine companion plant to the pink and white flowered species. Easy to grow and keeps well.

Glorinias. — The French tigered and spotted and some other good strains come true from seed. Defiance, scarlet, and Emperor Frederick, azure blue with white throat, are both fine varieties that come true from seed.

Tigridia violacea and *T. Patscuaro* (?) are new this year. *T. buccifera* has small, purple flowers, but they last only a short time and the plant soon runs to seed; these should be cut off, however. *T. Pringlei* is a fine species of the Pavonia type, but I have found various shades of color in it. Rather a good bulb, and grows very compact.

Moutbretias have thoroughly established themselves in the public's favor, and, too, in the dealer's pocket. They possess all the advantages of a Gladiolus. They are easy to keep, grow, and bloom, and the blossoms are beautiful on the plant or cut. Some kinds have distinct bulbous roots, others more fibrous — don't bother with the latter; and some have a better habit than others. The very best sorts are *Crocsmiaeflora*, *Pluie d'or*, *Transcendent*, *Soleil Couchant*, and *Elegans*.

*Iris*es. — Among *Kampfer's* *Iris*es, *Alexander*, *Malmaison*, *Gold Bound*, *Beth Hallock*, and *Blue Danube* are very fine.

Iris Iberica, although an old plant, is a good one, but scarce. *I. reticulata*, a bulbous, early, sweet kind, has always been high priced, but it is coming down.

Gladioli. — *Creole* and *U. S. Grant*, of *Dingee & Conard*, and *Miss Dudley* and *Nydia*, of *Burpee*, and *Florence Vaughn* are exceedingly fine new varieties of American origin. *Lemoine's* new strain of *Nanceianus* is typical of the parents. In *Harry Veitch* the individual flowers are distinct and good, but set very bad on the spike; the same is the case in *Dr. H. P. Walcott* and *Carnot*. In other instances the spike is finely furnished, but the flowers lack color and form. *New Blue* has not brought much *blue* with it, except to the one who paid \$2 for it. The color is bluish violet or purplish blue, and quite deep, and the flower is small and shaded, like *purpurio-auratus*. But much to my surprise the variety is a good grower. Speaking of blue-flowered *Gladioluses*: we ourselves have had many, from deep in color to white stained with clear blue. In some the bulbs are even blue. But all are poor growers. Of ten varieties of these we have, five have not yet started to grow this year, although the bulbs are apparently in good order and healthy. To get up a stock of blue *Gladioli* is hard work and no "kodak" process, and this is what surprises me in the *New Blue*: it is a good grower. *Louis Van Houtte*, both in *Nanceianus* and *Gandavensis*, is so poor as to have no excuse to exist in either section. And I

would ask our Gallic friends why put out eight to fourteen new varieties a year when there is real merit in only two or three?

Lilies.—In Lilies there is *Lilium ochroleucum*, soft yellow, trumpet shaped, from India. *L. Grayi*, from Roan Mt., not unlike a crimson *L. Canadense*, but the flowers are not reflexed. There is also a small form of *L. Washingtonianum* on the market, and said to possess merit. I don't mean *rubescens*. *L. auratum macranthum* is very fine; and *L. speciosum* var. *Opal* will soon be on hand. It is a good one. (I have had an eye on this new variety called *Opal* for several years, and seen it in all its stages of growth, rest, multiplication, and bloom, and unhesitatingly pronounce it one of the grandest acquisitions we ever have had in the way of hardy Lilies. The plant is healthy, and an excellent grower and free blooming; the flowers are white, spotted, stained with pink. A most lovely lily. — WM. FALCONER.)

Dahlias.—A. D. Livoni is the best of all pinks. *Triumphe de Solferino*, a very marked bush form, with large, intense solferino flowers; *Margaret Bruant*, the best dwarf white, on *camelliaeflora* order; *Lucy Fawcett*, a showy variety, early and exceedingly free; *Electric*, cactus order, brilliant scarlet, very free; *White Dove*, long stems, toothed petals; *Harry Freeman*, cactus order, an improvement on *Henry Patrick*; *Crimson Beauty*, a remarkable pompon, and *Robert Maher*, the best yellow cactus *Dahlia*.

Herbaceous Phloxes.—The new ones are wonders, single florets in many cases cover a silver dollar. *Aurore Boreale*, *Eclaireau*, *Panama*, *Paul Bert*, *Le Soleil*, *Stuedhal*, and *Flambeau* are fine. The foliage of *Golden Bedder* is of a good yellow color.

ANNUALS. — BY W. ATLEE BURPEE & CO.

Asters.—Among the best are *Comet*, *Queen of the Market*, and the *Diamond*.

Balsams.—The *Defiance* strain has the largest and most double flowers; individual flowers measure 2 to 2 1-2 inches through.

Calendula Oriole, or large flowering bright yellow, is a very large, golden yellow flowered variety; and *Royal Marigold Trianon* has sulphur yellow blossoms, as big as those of *Oriole*.

Carnation, Marguerite strain.—About eighty per cent come true from seed.

Dianthus, Dwarf Fireball.—Blood red. Fine for late summer and fall cutting.

Euphorbia heterophylla makes a good pot plant for the greenhouse in fall.

Lobelia compacta oculata.—Distinct, robust, compact, free blooming; good for bedding or as a pot plant.

Candytuft, Empress. — An extra fine strain of Rocket.

Nasturtiums. — Aurora, yellow, lower petals spotted with crimson: Brown Red, a rich shade, and Brilliant Yellow, well described in name, are the best of the recent additions.

Petunia. — The Defiance strain is a fine selection of the best of the grandiflora type.

Phlox Drummondii. — The Fordbrook strain of grandiflora has very large flowers of a wide range of color. The Star of Quedlinburg varieties have been improved immensely of late in size and form, and it embraces about forty shades of color.

Salvia farinacea is a Texas perennial, but grows well when treated as an annual. Flowers blue, or silvered blue, in long, close spikes. Easy to grow, free blooming, and lasts long in flower.

Pansies. — Defiance strain has very large, circular flowers of fine substance; individual blooms measure two and a half to four inches across.

Poppies. — Among Ranunculus-flowered varieties, Golden Gate and Shirley are unsurpassed; and Fairy Blush is the most beautiful of the large-flowered Poppies.

Sweet Peas. — Blanche Ferry (or Nellie James) is the most profuse and earliest variety. Among the new varieties we would recommend Primrose, a near approach to yellow; Splendor, bright pink; Purple Prince, maroon and purple; Queen of England, white; Boreatton, maroon; Mauve Queen, white, delicately shaded with mauve; and Orange Prince, orange, pink, and rose.

Among other plants we would especially recommend the Orchid Water Lily (*Pontederia crassipes major*). It flowers better when grown in a tub of water on the lawn than in deep water.

SOME HARDY PLANTS. — BY EDWARD GILLET, SOUTHWICK, MASS.

Arenaria Greenlandica. — A little alpine, easily grown from seed, forming small tufts of fine narrow leaves and large flowers.

Clematis Fremontii. — A low-growing herbaceous species with light purple flowers, perfectly hardy, and adapts itself to any garden soil.

Cooperia pedunculata and *C. Drummondii.* — Fine bulbous plants from Texas. The flowers are white and pink. *Pedunculata* blooms earliest in the season and has larger and more numerous blossoms than *Drummondii*.

Erythronium albidum var. coloratum. — A bulbous plant from Texas. Has large white, sometimes pink flowers; a thrifty grower, great bloomer, and quite hardy.

Shortia galacifolia. — Its beauty is much overrated, and it is not an easy plant to establish. The interest attached to its rediscovery, after having been lost for a hundred years, has made it famous.

Galax aphylla is, in my opinion, a finer plant. Its flowers are not showy, but it has such beautiful leaves, from dark green to bright crimson, and it can be grown in shade or sunshine, in dry or wet soil.

Trillium sylvosum has beautiful white or pink flowers, and is very easy to grow.

Calochortus flavus comes to us from Mexico, and is a beauty. The outer leaves of the flower are dark mahogany color, and not quite as open as are those of *Cyclobothra flava*.

Lilium Grayi. — Like *L. Canadense*, but the flowers are darker in color.

Nemastylis Pringlei and *N. Brunnea* are both new bulbous plants, but tender.

Tigridia buccifera has blue flowers. *Tigridia Pringlei* has scarlet blossoms. Both are tender and should be cultivated exactly like the older *Tigridias* of our gardens.

Azalea calendulacea, our native flame-colored species, is one of the loveliest shrubs of this continent, and thrives admirably in cultivation: indeed, it is as well worth growing as any of its hybrid progeny, called Ghent Azaleas.

Hydrangea radiata is another much overlooked native shrub we should grow more of for the sake of its striking handsome foliage — deep green above and cottony paper-white below.

SOME HARDY PERENNIALS. — BY MR. GEO. W. WOOLSON, SUPERINTENDENT OF GARDENING, NEW YORK CITY PARKS.

Aquilegia cœrulea var. *alba*. — This is what the seedsmen in Europe have been sending out as *A. chrysantha alba*. I had it from Utah some ten years ago. It is entirely distinct from *chrysantha*, which I have never seen make any break towards a white form. (I have grown *A. cœrulea alba* for years: it is the most elegant and beautiful white Columbine known. The variety above referred to as *A. chrysantha alba*, so far as my experience with it extends, is not as good as *cœrulea alba*. At first I thought it belonged to *cœrulea* because of a bluish tinge in the white, but as the strain is not yet quite fixed, every plant has either white or yellow flowers, and among scores of plants not one had blue flowers. This leads me to think that *chrysantha* blood is here, but not pure, because of the lesser stature and earlier blooming properties of the "new" variety. But as we all know, *A. cœrulea*, *A. chrysantha*, and *A. truncata* in gardens have been thoroughly mixed together, and

given rise to an interminable assortment of so-called hybrids.—W. FALCONER.)

Coreopsis grandiflora is commonly sent out under the name of *C. lanceolata*. Flowers orange yellow. In bloom from early summer till fall. About two feet.

Centaurea macrocephala. — Flowers in head, two inches in diameter; bright yellow; June, two feet.

Leuzæa conifera. — Flowers in cone-like bunches in June, purple; foliage whitish, pinnatifid; twelve to eighteen inches.

Hypericum Buckleyi. — A dwarf species with numerous half-inch wide yellow flowers in June; also has handsome leaves.

Echinacea angustifolia var. alba. — Plant two to three feet, flowers white, two inches across, and appearing all summer.

Petalostemon decumbens. — A dwarf, spreading half-shrubby plant, with spikes of deep purple flowers in summer.

Psoralea subcaulis. — A tuberous-rooted species with clover-like heads of purple flowers in June.

Geum Pyrenaicum. — Has bright yellow flowers in June; twelve inches high.

Potentilla Thurberi. — Flowers deep red, numerous in July and August; plant eighteen to twenty-four inches.

Serratula Tartarica. — Has yellowish scabious-like flowers all summer; plant four to five feet.

Liatris pycnostachya var. alba. — A fine white variety of the purple Kansas Gay Feather.

Echinospermum macraanthum. — A thistle-like plant, four to five feet high, with round heads of light purple flowers all summer.

Echinops commutatus. — Has reddish purple flowers in two-inch heads in July and August; plant two to three feet.

Schœnolirion croceum. — A tuberous-rooted plant, twelve to eighteen inches high, with spikes of small yellow flowers in June.

Zizyphora chenopodioides. — Flowers purple, in spikes; the whole plant strongly scented.

Brachyachata cordata. — Similar to a Golden Rod; eighteen to twenty-four inches high; flowers bright yellow in August and September.

Rhododendron Indicum var. obtusum came to us from Japan as *Azalea amœna*, from which, however, it is very distinct; it has brilliant red flowers, and is an evergreen, hardy, and most desirable little shrub.

MISCELLANEOUS PLANTS. — BY PETER HENDERSON & CO.

Mimulus moschatus fl. pl. — A novelty of much interest. Flowers quite double; whole plant as fragrant as the single-flowered one. A good grower, easily raised from cuttings, and a fine pot or basket plant.

Impatiens Sullani fol. variegata. — Foliage edged and marked with silvery white; otherwise, in manner of growth, brightness, and profusion of bloom, like the typical form.

Double Show Pelargoniums. — They appear to be equal to what the raisers claim for them, but they are too new yet to us, however, to say much about them.

Geraniums. — Among very promising new ones are Souvenir de Mirande, Alphonse Daudet, Panache de Nancy, Glory of Lyons, Beaute de Poitevine, W. P. Simmons, Trophée, Mrs. E. G. Hill, Amphlett, Mme. Legros Lacaille, California (this being an improvement on Golden Dawn in point of habit), Le Cid, M. Caro, Beauty of Ramsgate, and Copernic.

Carnations. — American Flag, Lizzie McGowan, and Louise Porsch (the best yellow, perhaps, on the market to-day) are capital varieties.

Roses. — Mrs. Degraw, Climbing Niphotos, Climbing Perle des Jardins, Ruby Gold, Gloire de Margottin, Jeannie Dickson, and Clotilde Soupert have proven worthy of favorable mention.

MISCELLANEOUS PLANTS. — BY JOHN SAUL, WASHINGTON, D. C.

Aralia Cashmeriana. — A hardy herbaceous plant of vigorous proportions and fine foliage.

Cienkowskia Kirkii. — A handsome plant from Zanzibar; though not quite new, is seldom grown. It requires a warm house during summer, and to be dried off and kept warm during winter. Flowers purplish rose, with a bright golden spot.

Dichorizandra (Cyanotis) Zauonia is a very beautiful plant of shrubby habit, in foliage and appearance the counterpart of *Tradescantia zebrina*, save habit. As it is of fine growth and easy to grow, it will be largely grown.

Gladiolus Nanceianus. — Of this new strain of Lemoine's I have several now in flower. Comte Horace de Choiseul, Charles Baltet, President Carnot, and Maurice de Vilmorin are fine.

Gloriosa superba and *G. Plantii* (virescens) are old but fine plants. The first named needs a warm house; the last named can be planted out during summer, when it grows freely to a moderate trellis, and its roots should be lifted and kept dry and warm over winter. Both are vines.

Ocra pulchella. — A beautiful vine from New Caledonia. Has many flowered cymes of white blossoms in winter.

Phrynium variegatum. from Singapore. An elegant plant allied to the Marantas, and requiring same treatment. Leaves pale green, blotched and variegated with white. A free-growing and very valuable plant.

Reinwardtia tetragynum. — A little shrubby Indian plant with sulphur yellow flowers. It is a capital greenhouse plant, and of the easiest cultivation. It is not new, but a plant deserving wider recognition.

Senecio pulcher. — Bedded out in summer, it flowers freely after July, and is very beautiful. Lift before frost comes, and keep it cool but free from frost during winter. Propagates freely from pieces of the root.

Arauja (Schubertia) grandiflora. — A climbing plant bearing clusters of large, very sweet-scented white flowers. Although not quite new, it is too little known.

Tecoma Amboinensis. — A handsome stove climber bearing racemes of large orange-red flowers.

Tecoma Ricasoliana (Mackenii). — As this plant comes from South Africa, we may expect it to prove hardy in the Southern States and Southern California. It bears magnificent racemes three to four feet in length of large, showy, trumpet-shaped flowers of a rosy-lilac color. It has done well with me.

Wistaria multijuga. — This is the Japanese species, with racemes three feet long, and which we see so often in pictures of Japanese gardens. I have had it for over twenty years. I have a large plant in bush form; when it flowers it is one of the most beautiful objects I have ever beheld; delicately and gracefully pendent, from it hang innumerable two to three feet long racemes of flowers.

NEW CANNAS OF 1891. — BY HENRY A. DREER.

Alphonse Bourrier. — Foliage deep green; plant very vigorous, but of dwarf habit; flowers very large and of an intensely rich crimson color.

Capitaine P. de Suzzoni. — Rich, deep green foliage, of strong, compact habit; flowers very large and produced on stout, branching stems; the color is a rich, golden yellow, minutely spotted with cinnamon red; undoubtedly the best of the spotted sorts.

Henry A. Dreer. — The best of this year's introductions that has yet flowered with us. The flowers are of very good size, nearly equalling those of Mme. Crozy, but with broader petals so as to form a rounder flower, while in color it is of an intensely rich glowing crimson overlaid with scarlet. It is the brightest colored variety yet introduced; foliage rich, bronzy purple.

P. Marquant. — Rich, deep green foliage, of dwarf, robust habit, and has bright crimson-scarlet flowers of good size.

NEW CALADIUMS. — BY HENRY A. DREER, PHILADELPHIA.

Barao de Mamore. — Very large foliage, ground color white, ribs sharply marked with crimson and green border; very distinct and fine.

Crato. — Rich crimson ribs on a white ground with green border.

C. E. Dahle. — White ribs on a green ground with large rose spots.

Cuyaba. — Large, transparent, rosy pink foliage, with deep green ribs and veins; very distinct.

D. Wettstein. — Yellowish green foliage, which is closely covered with reddish brown spots.

Dr. Neubronner. — An entirely distinct variety, with light green foliage, with lighter centre and crimson midrib, the entire leaf being covered with bright red spots.

Franz Joost. — Creamy white foliage suffused with silvery rose in the centre; large and bold; entirely distinct.

Joaquin Nabucco. — Deep carmine veins on a rosy carmine ground bordered with gray, and broad green edge.

Nitheroy. — Bright crimson-rayed centre on a yellow ground.

Mucuripe. — Rosy crimson centre on a transparent creamy white ground, and green border.

Tapajoz. — Yellow-green edge with a rosy crimson-rayed centre.

Porto Novo. — A distinct variety with large, green foliage, with white centre, thickly mottled border with crimson spots.

The above twelve varieties are a selection from about sixty varieties introduced during the past two years, and are really distinct. The balance of the collection are either similar to old existing varieties, or not desirable in color.

MISCELLANEOUS GREENHOUSE PLANTS. — BY PITCHER & MANDA.

Alocasia Laselliana. — Leaves eight to ten feet long, blade being one third of the length; deeply sagittate and deeply lobed.

Alocasia Regina. — Leaves sagittate, slate color above, vinous purple below with green veins; petioles finely spotted with reddish purple.

Cuphea Elara. — Flowers in masses; tubes of the flowers red; the opening purplish blue; anthers white.

Anthurium Raynoldianum. — Hybrid between *A. Ferrierense* and *A. Andreanum*. Leaves like *Ferrierense*, spathe of same color too, but shaped like that of *Andreanum*.

Anthurium Clarkianum. — Hybrid between *A. Ferrierense* and *A. Andreanum*; leaves large and broad; spathe salmon pink with darker corrugations; same shape as in *Andreanum*.

• *Anthurium Brownii*. — Same parentage as preceding: spathe bright crimson.

Dieffenbachia memorie Costa. — Leaves green, blotched with greenish white, netted with green veins, and many white spots scattered irregularly over both sides of the leaves.

Dieffenbachia amana. — Irregularly marked with greenish yellow on a velvety green ground: petioles white: caudex dark green.

Dracana Neo-Caledonica. — Leaves large, dark green, with indistinct white lines below: stems glaucous purple: strong growing.

Dracana Cantrellii. — Leaves dark purple with red midvein or red margin: stems glaucous purple: colors when young.

Dracana argentea striata. — Leaves small, lined with silvery bands.

Pandanus amaryllidifolia. — Leaves amaryllis-like, scarcely a vestige of a spine: free grower.

Pandanus Lucianus. — Leaves resemble those of *P. utilis* in a young state, but they are stiffer, and instead of drooping outward, they at first stand upright, then tend to horizontal.

FERNS.

Aspidium viridescens. — A large species with bipinnate tapering fronds, having crenately lobed pinnules: also a variegated *Adiantum cuneatum*.

HARDY PLANTS.

Iris Caroliniana, three feet high with blue flowers: *Phlox paniculata* var. *Gloire d'Orleans*, one and one half to two feet high, variegated foliage: *Helianthus multiflorus grandiplenus*, very double: *Eulalia Smithii gracilis*, and semi-double Oriental poppy.

BY MRS. HELENE BERGER, SAN FRANCISCO.

Styrax Obassia. — An exceedingly fine shrub from Japan, of somewhat fastigiate form, with ample leaves and a great profusion of white, fragrant blossoms in May and June. (Perfectly hardy at Glen Cove, N. Y., free growing and with delightful blossoms. — W. F.)

Magnolia parviflora and *Watsoni*, both from Japan. Most beautiful shrubs or small trees, and sure to bloom. (Two of the choicest gems among shrubs, perfectly hardy at Glen Cove, very free blooming, and plants as small as two feet high bloom nicely. — W. F.)

Ilesia polycarpa, also from Japan, should be better known. (Only precariously hardy about New York. — W. F.)

CALIFORNIA PLANTS.

Among those that are not nearly as well appreciated in the East as they should be, are, *Dodecatheon Clevelandii*, *Lathyrus splendens*,

Delphinium nudicaule, D. cardinale, Romneya Coulteri, and Ceanothus azureus.

Our California small bulbs, such as Calochortus, Brodiaea, Fritillaria, Camassia, Erythronium, and Trillium, are not as well known and appreciated in the trade in this country as they are in Holland, England, and France, but they certainly deserve to be.

MISCELLANEOUS PLANTS. — BY MR. L. W. GOODELL, DWIGHT, MASS.

Rose Waban. — Fine bedding variety, good grower, and blooms freely.

Canna Star of 91. — Can indorse all you have written about it. Has been in constant bloom since March.

Dianthus Little Gem. — The Bride or a selection from it, and, perhaps, better.

Zinnia Haageana var. pumila. — Very good.

Giant Eschscholtzia. — Can see no difference from the common.

Archiea coruata. — A good thing, but can never become popular, as it bears very little seed, and only five to ten per cent of it will germinate under the most favorable circumstances.

Mountain Fleece. — Too late for this locality.

Sweet Pea Blanche Ferry. — Excellent; distinct; larger and better than Painted Lady.

Double Bachelor Buttons (Centaurea Cyanus fl. pl.). — Good when true. But they need rigid selection. They were sent out too soon.

Phlox Drummondii nana compacta Defiance. — A new color in Phloxes, and a gem for pot culture, small beds, or edgings.

China Aster Non Plus Ultra. — One of the most double and best of the Victoria class.

Limnathemum Indicum. — The most interesting of all small aquatics, and will become popular as it is easily grown.

Nymphaea Martiaceae chromatella is perfectly hardy here and finer than ever this year.

BY MR. R. D. HOYT, SEVEN OAKS, FLORIDA.

Mucuna paniculata. — If it will do even half as well North as here, it will be a valuable addition to our soft-wooded climbers.

Aristolochia grandiflora is all that is claimed for it, more perhaps in the way of abominable smell.

FERNS FROM HONOLULU.

Among some nice ones we have from there are *Aspidium cyatheoides*, *Polypodium spectrum*, *Cibotium Chamissoi*, and *Sadleria*

cyatheoides. The two last are fine specimens, with clear stems four to five feet high.

MISCELLANEOUS PLANTS. — BY WM. ROBINSON, NORTH EASTON, MASS.

Carex variegata, about eight inches high and growing in tufts like *Isolepis gracilis*, is a beautiful little variegated plant with narrow grass-like leaves. It will yet be heard from.

Anthurium Scherzerianum var. *Parisiense* has beautiful light pink flowers.

Bougainvillea glabra variegata is a showy plant with a deep, rich golden variegation of its foliage.

Phœnix Rebelini is a small-growing Palm, dwarfer and more delicate than *P. recurvata*. A fine acquisition.

MISCELLANEOUS PLANTS. — BY HENRY A. DREER.

Selaginella Emillana. — A distinct species. Bright green color, upright habit, forming beautiful specimens six to eight inches high.

Asplenium grandis, *Pteris nobilis*, and *Pteris Victoria* are very promising new Ferns.

The variegated *Impatiens Sultani* was raised by Mr. F. Scholes, of Brooklyn. The foliage is beautifully edged, and variegated with silvery white. In all other characters it resembles the parent.

Coleus Mrs. James O. Cowles has long serrated foliage, pea green with yellow border.

MISCELLANEOUS PLANTS. — BY MRS. THEODOSIA B. SHEPHERD, VENTURA, CAL.

Abutilon Niobe. — Flowers salmon with red veins and large overlapping petals like *A. Sensation*; foliage deeply divided; branches slender and drooping.

Abutilon Golden Puff. — Flowers clear rich yellow, shining and waxy, incurved and puffed; foliage large; habit robust.

Canna Anacopa. — Light green foliage, six feet high; flowers rich orange spotted with scarlet, petals long and waved.

Canna Comulus. — Habit tall; flower stems outbranching; flowers brilliant orange-scarlet with yellow throat and small petal, red flaked with yellow, and the blossoms lean outward from the spike.

Canna Ventura. — Flowers carmine-scarlet, five inches across; petals one and one quarter to one and one half inches wide, falling loosely; five feet high; dark green foliage.

Fuchsia Shandon Bells. — Dwarf, pretty habit; medium-sized grace-

ful flowers; sepals pinkish scarlet, well recurved; petals creamy white; double; continuous bloomer.

Fuchsia General Vanderer. — Climbing habit, rampant; yellowish bronzy foliage; very large single or sometimes semi-double flowers, with extra long stems; sepals light red; petals purplish crimson. Not for winter blooming.

Ipomœa Heavenly Blue. — Mrs. Shepherd asserts her belief that this is a hybrid between *Ipomœa Leari* and *Mina lobata*. Annual, vigorous, free blooming; flowers about size and shape of those of *Leari*, but of a light, pure blue without a trace of purple or violet in it.

Mandevilla suarecolens, large flowering. — More robust than the type; flowers three and one half to four inches wide, with petals an inch wide, and their rounded sides daintily fluted; in the type the flowers are only one and one half to two inches wide.

Carnation American Flag is the most vigorous grower of any of the new Carnations, and has done better than any other of the new sorts with me.

SIEBRECHT & WADLEY, New Rochelle, N. Y., inform us “of a few plants which are new with us and which we have had under cultivation for the last year or two, but which we think have never had any popularity in this country.

•• *Asparagus decumbens (procumbens)*,

•• *Allamanda grandiflora*,

•• *Tillandsia (Bilbergia) species*. We named it *T. rubro violacea*. It is a native of India.

•• *Arcaea Catachüe*. — A Palm supposed to be a native of Paraguay. We have it under cultivation. It is somewhat like *Kentia Wendtlandii*, though the leaves are not as long, and hence not as arching as the above. A handsome decorative plant.

•• *Pteristremula Smithii*, sent out by Richard Smith & Co., Worcester, England, is a distinct novelty, and in the way of *Pteris nobilis* and fully as much crested as it is.”

MISCELLANEOUS ITEMS.

Rose Toronto is the golden flowered form of *Perles des Jardins*, raised and grown by Mr. John H. Dunlop of Toronto, and which was seen at home growing and blooming and in fine condition last January by the Executive Committee of the S. A. F., who admired it and eulogized it unstintedly. “The habit is dwarfer than that of *Perles*, but the growth is very robust, and almost always there is only one blossom to the shoot; flowers large, deep golden yellow deepening in the centre in open flowers to soft rosy pink; foliage distinct from

Perles, larger and deep blood red in youngest wood like Sunset. It is a profuse bloomer, and in winter almost free from 'bull-heads.' "

A tricolor-striped variegated-leaved Canna.—This was raised by Mr. McPherson, of Toronto, and now handled by Mr. Gilchrist, of West Toronto Junction, and appears to be a very promising variety. As all of the plants we saw were greenhouse grown, their variegation was paler than would have been the case in outdoor specimens. Nevertheless, it looks well and promises to be better than the variegated Warscewiczii, or any other variegated-leaved Canna in the market.

Cotyledon (Echeveria) John Cotterill, a beautiful and highly tricolor-variegated dwarf form raised by Cotterill Brothers, Toronto. Their description: "In growth similar to *E. secunda glauca*: the main stem is delicate pink, the leaves have a pale green centre varying from white and pink to a deep carmine at the edge."

Mantons' Seedling Echeveria is a glaucous green variety, raised in 1881, by Manton Brothers, of Toronto, from seed of *E. metallica*.

Mantons' Fern.—This is a seedling Fern that originated with Manton Brothers, Toronto, but its parentage is unknown. It is an elegant Fern. The raisers' description: "Habit like *Pteris tremula*, and appears to have some of the characters of *P. serrulata*: fronds two to three feet long, branched and divided, the ends of the pinnae running out long like those of *P. serrulata*, and sometimes crested. A good grower."

Lilium Wallichianum var. superbum is one of the *L. Japonicum* section, and has exceedingly large trumpet-shaped blossoms, white overcast with yellow inside, and powerfully fragrant. As a pot plant, it is easily grown and flowered, and bulblets are often produced at the leaf axils along the stems, thus rendering its multiplication an easy matter. President-elect James Dean writes me regarding it: "It is a decided acquisition to our Lilies."

Hibiscus intermedius is said to be intermediate between the Hibiscus and the Althaea, with a promise of its being hardy. Flowers scarlet, single, medium sized; petals fringed. — E. G. HILL.

Abutilons, L'Africain, very large, dark maroon red; *Calypso*, the best white Abutilon ever sent out; and *Saglant*, dark blood red.

Heliotrope, Fleur d'ete.—Plant healthy grower, producing very large trusses of white flowers, which are very fragrant. A good variety. — A. P. SIMMONS.

Of the Mosquito Plant (*Vincetoxicum acuminatum*), Mr. J. C. Vaughan writes: "It is really a beautiful thing, covered with Lily-of-the-Valley-like flowers."

A nice lot of seedling *Nepenthes*, obtained from seeds of *N. Chelsoni* crossed with *N. Taplini*, are reported by the raiser, Mr. G. Bennett, of Flatbush, L. I., who also mentions a running Bon Seline Rose raised by Kretchmar Brothers, of Flatbush.

Agave vestita is reported from the Botanic Garden, Cambridge, discovered by Mr. C. G. Pringle in Northern Mexico. A rosetted form with tapering leaves nine to twelve inches long, and white threaded edges. *Spiraea Japonica multiflora* and *S. astilboides floribunda* are also mentioned and said to be improvements on the types.

Mrs. T. Gould, of Ventura, California, tells me of a strain of superbissima *Petunias* she has secured bearing flowers six and one fourth to six and one half inches across.

Mr. Henry Michel, of Marion, Indiana, strongly recommends the white Everlasting Pea (*Lathyrus latifolius* var. *albus*), and the white variety of *Campanula persicifolia*, although not new, as indispensable to the florist for a supply of white flowers.

Mr. John Eblen, of New Orleans, sends me fronds of an extremely beautiful and deeply and finely fringed variety of *Pteris serrulata*, and which he says is a seedling of *P. serrulata* var. *cristata*.

Aquatics.—Mr. Wm. Tricker, of Dongan Hills, Staten Island, sends me leaves and flowers of the charming yellow *Nymphaea Mexicana*, which blooms far more abundantly than the Florida *N. flava*. He also sends me flowers of Dr. Bahnsen's new hardy pink *Nymphaea*, which is supposed to be a hybrid between *N. odorata rosea* and *N. alba caudissima*. It is a vigorous and free-blooming Lily, bearing all summer long, large pale pink fragrant blossoms, and he informs me that Mr. McElvery, of Flatbush, has an unusually large-flowered form of *N. odorata* which he calls *major*.

Mr. Chas. Burr, president of the Springfield, Mass., Am. Hort. Society, says: "The new Lilliput *Zinnias* are little beauties, and one of the best things I have in my garden. The Margaret *Carnations* are good, but need close selection, and the new dwarf variety of it is an improvement on it, but it isn't fixed enough yet.

HARDY BULBOS PLANTS WHICH SHOULD BE BETTER KNOWN.—BY
 PROF. B. M. WATSON, INSTRUCTOR IN HORTICULTURE, HARVARD
 UNIVERSITY.

Tulipa Kaufmanniana, also *Leichtlinii*, fine in every way and perfectly hardy.

Tulipa Kolpakowskyana, *Koralkowi*, and *lanata*, interesting, but not likely to be of much use.

Allium oreophyllum (*Ostrowskyanum*).—First class, and should be

grown largely: in the way of *A. Moly.* but a good pink and not quite so late.

Anemone Appennina is hardy, but does not bloom freely.

Anemone blanda is fine.

Chionodoxa gigantea, sardensis, and *Cretensis albiflora* are all good and worthy of cultivation (*C. Lucillie* is the best, however).

Bulbocodium vernum should be more extensively planted.

Crocus speciosus seems the best autumn Crocus, and I do not understand why it is not common: first class and perfectly hardy here.

Galanthus Elwesii is the best. Every garden should be well stocked with it.

G. Fosteri is not a success here (in one year's trial).

Gladiolus Byzantinus, communis, nanus, and *ramosus* in variety are all hardy here and interesting.

Kniphofia (Tritoma). — Why are they not oftener planted? Fine for decoration when flowers are scarce, both in open air and in rooms.

Lachenalia aurea. — Tender: fine for forcing.

Lilium umbellatum. — Excellent for open air. Should be planted largely. Also forces well.

Narcissus Bulbocodium. — Fine for forcing. All in open air here were winter-killed last winter, but in winter before they came through in first-class condition.

Narcissus, named varieties of the "Trumpets," seem unsatisfactory to me at the prices charged for them, they resemble each other so much: perhaps they will improve with age.

N. poeticus grandiflorus has not yet given a flower stock two feet high and a flower four inches across.

Scilla campanulata and *S. nutans* should be grown in greater quantities.

Trillium grandiflorum, ditto.

Brodiaea coccinea and *B. congesta.* — Both were hardy at Plymouth, Mass., last winter, with flowers in June much better than I have ever seen under glass. *Iris Hispanica* was also hardy at the same place, and beautifully in bloom June 20. No protection except two inches deep of pine-needles. Soil very sandy.

Camassia esculenta. — Hardy at Plymouth: forced here well, but came into bloom late in May.

Doronicum plantagineum excelsum. — Bloomed under glass (undoubtedly hardy), and promises to be better than any of the old ones: very large flower.

Epemediums force well and are very nice.

Eremurus. — Why do we not have *E. robustus* in the fine form in which Mr. Wm. Falconer furnished it at the Botanic Gardens, Cambridge, Mass.? One of the grandest of all bulbous plants.

Hellebores. — The more I see them, the more I like them, both out of doors and under glass. They should be grown in larger numbers, both in the open air and for forcing.

Leucojum vernum is not new but uncommon. A beautiful plant.

Puschinia Libanotica. — Completely hardy at Plymouth, Mass., and here, and a most interesting addition to spring-blooming plants.

Neophilwa and *Trichomma*. — I have had no success with either; tried under glass and out of doors.

SHRUBS AND OTHER HARDY PLANTS WHICH SHOULD BE BETTER KNOWN.

— NOTES FROM THE ARNOLD ARBORETUM, BY PROF. B. M. WATSON.

Clematis corulea odorata. — Promises to be an interesting plant.

Clematis cilicella. — Garden hybrids, well worthy of more extended use.

Clematis erecta. — Why is not this a good flower for florists' use? (It is splendid. But where practicable, get the double-flowered variety, as its blossoms are whiter and last longer when cut. It is not plentiful, however. — W. F.)

Berberis stenophylla. — Very pretty and quite unlike other barberies. (Barely hardy at Boston, though. — W. F.)

Alyssum gemouense. — A fine yellow, in the way of *A. saxatile*, but not so bright.

Iberis Tenoreana. — Much the earliest and best of the hardy Candytufts.

Helianthemums. — The garden varieties of *H. vulgare* have been abundantly in flower this year and very interesting; they need protection.

Hypericum calycinum is rather tender here, but very effective both in flower and foliage.

Stuartia. — Unnamed species from Japan; is now (July 1) in fine bloom and very handsome. This and one or two other Japanese *Stuartias* are much hardier here than our native species growing side by side with them. The flowers are two to three inches in diameter, and the plant being of fine foliage, promises to be a great addition to our flowering shrubs.

Prunus pendula (known under many names, generally a longer one), the early flowering, weeping Japanese plum, blooms abundant in early spring. One of the very best of recent introductions. The plant is much better to be grafted low and staked, than when worked standard high. It should have a place in every good garden.

Prunus Miqueliana seems only a variety of the above.

Prunus Miobalana seems more worthy of cultivation than the

variety *Pissardi*, which is more often seen. (The double forms are fine. — W. F.)

Prunus tomentosa is very good and is now (July 1) in some cases well covered with fruit, which adds to its attractions. In the Arboretum there is a variety showing a little pink in the flower, which is generally white.

Prunus avium multiplex.

Prunus avium fl. pl.

Lonicera Sullivantii combines fruit and foliage, so continuing the interest in the plant after the flower is past.

Andromeda speciosa, with its large bell-shaped flowers, is among the best of its class; the flowers are now (July 1) just passing. The var. *pulverulenta* makes a pleasing addition.

Symplocos crategoides is a charming plant in every way. The flowers, are abundant, and in the autumn comes the blue fruit, which is unique.

Styrax Americana is a little tender here, but a most worthy plant. (Very lovely, and hardy on Long Island. — W. F.)

Pseudo-styrax hispidum bloomed here for the first time this year. It is from Japan, and has been known under the name of *Halesia hispida*, but it does not at all resemble *Halesia*. The flowers are white, small, in clusters about six inches long, and borne on the ends of the branches. Altogether it promises well, but there may be trouble in its hardiness. (Perfectly hardy at Glen Cove. — W. F.)

Forestiera acuminata seems perfectly hardy here.

Ligustrum Ibota is fine in masses, now in good bloom in the Arboretum.

Syringa Pekinensis has been magnificently in flower in various places this year. It is a great addition. The weeping variety does not seem at all a success.

Syringa Japonica is not as yet apparently so profuse a bloomer. It is, however, very desirable and quite by itself.

Incarvillea Olga is just coming into bloom (July 1). Its pretty foliage and small bignonia-like flowers make it a pleasing addition.

Aristolochia Siphon has fruited now for three years at my father's place in Plymouth. The seeds germinate readily.

Elaeagnus longipes is certainly a great addition.

Corylopsis pauciflora is interesting on account of the earliness and abundance of its small yellowish white flowers. It stands here with some protection. (Splendid and perfectly hardy at Glen Cove. — W. F.)

Acanthopanax riciniifolia seems a great addition to our foliage

plants; although not so fine, in some ways, as *Aralia spinosa* and *A. Sinensis*, it stands the climate better.

Viburnum. — Why are not the American *Viburnums* more largely grown? Foliage, flowers, and fruit all make them highly desirable for ornamental planting. *V. Opulis*, *V. dentatum*, *V. cassinoides*, and *V. prunifolium* are all good and they should be get-at-able.

Lonicera Tartarica. — Some of the varieties are now well covered with fruit, and so very ornamental.

Lonicera Morrowi is well fruited.

Lonicera bella rosea, *atro rosea*, and *albida* are perhaps even better than the two foregoing kinds in this respect.

Prunus Cerasus ranunculiflora (I do not think any of these are new) are all good double-flowering Cherries.

Prunus Chamaecerasus is certainly well worth growing for foliage alone. It should be worked low (about eighteen inches) for this purpose.

Spiraea discolor var. ariaefolia is now (July 1) just coming into fine flower. Unfortunately it is "bothered" by the climate.

Spiraea canescens is a fine plant, somewhat resembling an extra good form of the common Meadow Sweet.

Rubus deliciosus is not as common as it should be.

Rubus fruticosus fl. pl. — A white-flowered form. There is in the Boston parks a double pink *Rubus*. The pink-flowered plant is the best.

Rosa Wichuraiana (*R. bracteata* of many nurserymen's lists) is a most desirable plant. It seems to me that its hardiness is not yet beyond dispute, but it has stood here a number of years, and is largely grown in Franklin Park. The bright green, glossy leaves and large pure white flowers coming in July, after all the Roses, except *R. setigera*, are out of bloom, makes it of great interest to the grower of hardy shrubs. About here it is kept trailing on the ground, and so makes protection easy.

Rosa repens. — The type from which probably the Ayrshire Roses came is very pretty and interesting.

Rosa grandiflora. — A large single, early blooming Rose, which appears to be a variety of *R. spinosissima*. Very handsome indeed.

Rosa multiflora. — Mr. Dawson has a large number of hybrids of this Rose, with various hybrid perpetual and other Roses. Most of them are very interesting, and they will prove great additions to the garden. None have as yet been put into the market, but some have been shown at the Massachusetts Horticultural Society meetings. One, perhaps the best grown out of doors, is seven to eight feet high, and has been covered with hundreds of bright red flowers in clusters; each

bloom is double or semi-double, and of the small size which marks the *R. multiflora* blood. They are unique, and besides being perfectly hardy, do not at all resemble the Polyantha Roses.

Photinia villosa, *Pourthiava arguta*. — Two plants, coming near the Amelanchiers, which promise to be good additions to our list of shrubs. The foliage is fair, and they have an abundance of white flowers somewhat resembling the Cratæguses.

Pyrus baccata (the *P. floribunda* of the nurserymen's lists) cannot be too highly recommended.

Eothergilla Gordonii (*E. alniifolia*) should be more commonly planted.

Rhododendron (*Azalea*) *Vaseyi* is one of the best new shrubs we have had here for the past ten years, and is a capital subject for crossing.

Rhododendron (*Azalea*) *arborescens* is quite like *R. viscosum*, but distinct enough to make it a valuable addition.

Deutzia parviflora is a handsome flowering shrub, and unlike any other *Deutzia*.

HARDY PERENNIALS, WHICH SHOULD BE BETTER KNOWN. — BY MR. J. W. MANNING, READING, MASS.

Chrysanthemum lacustre was shown in fine form, by Mr. N. P. Kidder in Boston the other day. It has large, white flowers with yellow disk, and blooms late and has none of the weedy features of the white weed, or *C. maximum*.

Achillea Le Perle and *A. Ptarmica fl. pl.* are indispensable. The first is very free and copious, and has large pure white flowers, but is a little weedy as to spreading in the ground; the last named is too old and useful to need remark.

Aster ptarmicoides, for August and September white flowers, is desirable, and it is neat, rather dwarf, and easily grown. *A. longifolia* var. *formosissima* makes a dense self-supporting bush, and bears a wealth of rosy or purplish pink flowers. Very desirable.

Aster spectabilis in color and habit is good.

Veronica spicata var. *alba* has pure white flowers: of much service to florists; *V. incana* for cutting or bedding is a gem; *V. amethystina* gives us a choice blue in June; and *V. longifolia* var. *subsessilis* is particularly showy, but the stock of it in the country is limited.

Eulalia gracillima var. *univittata* has come to stay. It is the most graceful of all the ornamental Grasses.

Aira cærulea var. *variegata* is a pretty dwarf Grass suitable for edgings.

Armeria vulgaris var. *Lauchiana*. — Deep rosy red, is the best of the seapinks; and *A. plantaginea* var. *rosea*, clear deep pink, very showy and continuous blooming.

Heuchera sanguinea has nice, open clusters of deep crimson blossoms; continuous blooming; grand.

The perennial *Candytufts* are gaining in favor. *Iberis Tenoreana* is the earliest; *I. corraefolia*, next. The double-flowered *I. semper-virens* is not as good as the single one.

Ænothera glauca var. *Frazeri* has large, cupped, glowing yellow flowers; fine.

Astilbe (*Spiraea*) *Japonica* var. *grandiflora* is larger and better than the common form, and must supplant it.

Spiraea astilboides is very fine, and when plentiful enough florists will force it in quantity.

Achillea tomentosa gives us a fine bright yellow.

Euphorbia corollata in July and August is exceedingly useful for cutting.

Spiraea palmata, carmine crimson, and its white var. *alba* are fine. (Sometimes, but generally, it is not nearly so satisfactory as *S. venusta*. — W. F.)

Doronicum plantaginicum var. *erectum* is the best of its class, and *D. caucasicum*, though less floriferous, is also fine.

Anthemus tinctoria, though not new, is fine. It blooms for a long time. Good for the plant trade.

Abstrameries are fine for cutting, but not trustworthily hardy.

Hybrid Potentillas. — The self-colored ones particularly will be sought for.

Gypsophila repens is a dwarf creeping plant, earlier and larger blooming than *G. paniculata*, and worth having on this account. *G. acutifolia*, though large and coarse, prolongs the blooming period.

Veronica spicata var. *alba* has pure white flowers; of much service to florists.

Phlox orata, about eighteen inches high, has medium panicles of pink flowers that come in between *P. subulata* of spring and *paniculata* of late summer, and is a really good thing.

Pyrethrum uliginosum, white, August and September, has come to stay.

Helianthus latiflorus (*H. rigidus* var.?) — Yellow, approaching orange-yellow, of perfect form. One of the finest of all.

Malva moschata var. *alba*, if kept free from heavy seeding, gives a large measure of flowers.

Asperula hexaphylla, after the fashion of *Gypsophila*, but earlier.

Lycnis Chalcedonica, double scarlet and double white. Splendid perennials, but the stock is limited.

Pyrethrums are very desirable and here to stay.

Viola cornuta var. *alba* blooms for a long time.

Dicentra eximia, wherever planted under proper conditions, has captivated the planters.

Clematis paniculata, for cut flowers in September, should be planted liberally.

Boltonia latissuama. — For cut flowers excellent, and a tremendous bloomer.

Delphinium grandiflorum (*Chinensis*) will yet create a furore among the florists.

Platycodon is good in all its forms. But the white and double white and the dwarf *Mariesi* are the most desirable.

Lychnis diurna var. *fl. pl.*, clear red, very double, and blooming freely and for a long time: particularly valuable for Decoration Day flowers.

Coreopsis lanceolata, *C. grandiflora*, and *C. auriculata* are all good, but we still consider *C. lanceolata* the best.

THE EXHIBIT AT THE WORLD'S FAIR.

Secretary STEWART here stated that the special committee which had been appointed at the request of Mr. Allison, Acting Chief of the Department of Horticulture of the World's Columbian Exposition, had prepared a report which they were now able to submit. He then read the following report from the committee: —

Your committee appointed at the request of Mr. Allison, Acting Chief of Department of Horticulture of the World's Columbian Exposition, beg leave to submit the following for your approval. Many suggestions have been made, but those considered by us of great and vital importance are briefly these: —

First. Immediate action. Many immense specimen plants must be brought from the tropics. Success with these requires a year's careful growth before the Exposition opens, and our work can be conducted successfully but six months of the year.

Second. Ample outdoor space must be provided. In the displays of Tulips, Hyacinths, Gladioluses, Dahlias, Roses, Clematis, etc., as well as annuals like Pansies, Phlox, Asters, etc., liberal outdoor room is absolutely essential for a representative international or even American display.

Third. The co-operation of the owners of private conservatories of the country, by whom we believe many grand specimens will be donated which could not otherwise be secured.

Fourth. We pledge the united efforts of this Society in the direction of harmonious work with the World's Columbian Exposition to make

the horticultural display in 1893 the grandest the world has yet known, and to harmonize with the great displays prepared on all lines of human industry.

By the committee,

ROBT. CRAIG, *Chairman*.

J. C. VAUGHAN, *Secretary*.

Discussion of the report was invited.

Mr. JOHN CHAMBERS, of Toronto. Mr. President, I would like to supplement what has been so well said by Mr. Vaughan or Mr. Craig in this report, by saying that I think this Society should take action on the matter, and should take action at once. We all realize that the preparations for a great horticultural exhibition cannot be made within a period of one or two months. There is a great deal to be done. I would like to see, as would every one in Canada like to see, the World's Fair a success. I would like to see there plants from every part of America. Here in Canada we may not have establishments that can make a great exhibit, but we have a large number of private places in which plants are grown. I would like to see every one of those places exhibit a plant that would reach to the top of this hall. I think that, by united effort, by taking up one plant here and one plant there, our people in Canada can aid in making a creditable show, and one in which all parts of the country will be represented. I think it due to ourselves to appoint a committee in this matter at once. I therefore move that a committee be appointed to take into consideration the matter of gathering together the exhibits for the World's Fair.

Mr. H. A. SIEBRECHT seconded the motion.

Mr. CHAMBERS'S motion was adopted by a unanimous vote, and the President was authorized to appoint the committee.

Mr. CHAMBERS. Mr. President, permit me to add, for this is what I intended to say in the first instance, that I would like to see the Society of American Florists make an exhibit as a Society, and to take charge of the exhibit. In fact, I intend to suggest to the committee, when it is appointed, that they make application at once to the managers of the Exposition for an allotment of space for a special exhibit at the World's Fair. I will not specify now the amount of that space, but it might be, say, 5,000 feet. Then the management may see that we mean business.

The PRESIDENT inquired of how many members the committee should consist.

Mr. CHAMBERS. I would suggest that, as the territory to be represented is so extensive, the committee should be as large and as representative as possible.

Mr. CHAS. P. ANDERSON, of Flushing, N. Y. Would it not be well

for the Vice-Presidents of the different States to be upon that committee? I would offer that as an amendment.

The PRESIDENT. The Chair would state to Mr. Anderson that the names of many of the Vice-Presidents for the ensuing year have not yet been sent in. If only a portion of them are appointed, the committee would hardly be a representative body.

Mr. ANDERSON. I withdraw the amendment.

The PRESIDENT here constituted the committee as follows: Messrs. John Chambers, of Toronto; Robert Craig, of Philadelphia; H. A. Siebrecht, of New York; and F. L. Harris, of Natick, Mass.; with power to add to their number, if necessary.

FINAL RESOLUTIONS.

Mr. J. D. CARMODY, of Evansville, Ind., Chairman, presented the following report from the Committee on Final Resolutions:—

Resolved. That the thanks of this Convention and of every member of the Society are due to the officers and the Executive Committee for their active, able, and conscientious work in promoting by every possible means the welfare of the Society and the usefulness of its annual meetings.

Resolved. That the Society of American Florists, in Convention assembled, tenders to the Toronto Gardeners' and Florists' Club its grateful acknowledgment of all that has been done to promote our comfort and add to the pleasure of our sojourn in their beautiful city.

Resolved. That our thanks are especially due to the Mayor and the City Council both for the very cordial welcome that we have received, and for the placing at our disposal of this ideal place of meeting, a building more perfectly adapted for our requirements perhaps than any we have yet had.

Resolved. That to Alderman Hallam for his lavish hospitality at Rosedale, to the Victoria Club for throwing open to us the doors of their admirably appointed establishment, and to Warden Massey for his unfailing courtesy to all visitors to the institution under his charge, the thanks of this Convention are especially due.

Resolved. That the press of Toronto are entitled to our cordial acknowledgment of their success in accurately reporting the proceedings of this Convention, and of their good taste in refraining from publishing any but faithful and lifelike portraits of prominent members of the Society.

Resolved. That the thanks of this Convention and of the whole Society are due to our essayists for their very able and successful effort in making this meeting both entertaining and instructive.

(Signed)

J. D. RAYNOLDS, *Chairman.*

PATRICK O'MARA.

J. D. CARMODY.

On motion of Mr. J. L. DILLON, of Bloomsburg, Pa., the report was adopted by a unanimous vote.

NEW IDEAS IN GREENHOUSE CONSTRUCTION AND HEATING.

The Question Box was here reached; the first item being, "New Ideas in Greenhouse Construction and Heating."

Mr. E. G. HILL, of Richmond, Ind., who had been assigned to make a reply, read the following response: —

The enterprising management of the "American Florist," through their correspondents, have stolen nearly all my thunder on the subject assigned me, for in recent issues of their paper they have given most of the points on which I was supposed for the moment to hold a monopoly. It will perhaps not be amiss to reiterate with emphasis the usefulness and practicability of some of the supposed "new ideas" there mentioned, and at the same time give double emphasis to the importance of some "old and well-established points" in greenhouse building which are well known to the fraternity, while at the same time they are ignored in the great majority of cases.

Construction.

1. *Posts.* Where wood is used, red cedar is preferable, on account of its known durability; mulberry comes second, with locust third. Red or Tennessee cedar costs 5 in. x 5 in. x 8 ft. long, 70 cents each, in Cincinnati; 6 x 6, 10 ft. long, \$1.10. Hewn posts of red cedar about 5 x 4 and 7 ft. long can be had for 40 cents; these will answer, though sawed posts are preferable. The price of these posts, in cedar, mulberry, and locust, varies according to location, of course.

2. *Setting the Posts.* By all means place a large stone under each post; or, instead of digging the hole, use a post auger, set the post, and fill up with liquid cement; in this method great care must be taken in the alignment of the posts, for after the cement is set it is impossible to readjust them.

Too many florists are like the old gentleman who wasted a great amount of money on the education of a very mediocre son. Complaining to the president of the college of the meagre results yielded for so great outlay, the educator replied, "It's a mistake, friend, to try to put a thousand-dollar roof upon a fifty-dollar barn." Too many of us, who use excellent judgment in other matters, may be seen putting splendid roofs, the finest of glass, and a good ventilating apparatus upon oak or other quick-rotting material, only to see the structure go to wreck in from six to ten years.

A splendid purlin is made of galvanized one-inch pipe, fastened by

strips of the same metal to each sash-bar; these purlins are also used to convey water through the house, thus doing double service, in supporting the roof and also acting as water conduits. We ream out the T's so that the upright supports are readily adjusted, without having to cut purlin every six feet, this being the distance the supports are apart. At proper intervals the down pipes or supports have water cocks with hose attachments. With adjustable joints, the ventilating shaft may also carry and temper the water used for syringing, and why not avail ourselves of every possible advantage in this line in winter? The direct rays of the sun acting on these pipes take the chill off the water in an incredibly short time. Are there not many other ways in which natural forces may be made to work to our advantage? Doubtless the answer to the question next in order will bring out the application of some of these latent forces.

Benches. The posts for these should be of the same material as that used for supporting the roof; the loss to the fraternity by falling benches and decaying material is something frightful. Waste, waste, both of time and money, with no end of vexation and trouble. For side benches we simply mortise into the posts supporting the houses, using a light second-hand T rail from the street railway, which can be bought at the current price of old iron in most of the larger cities. Ours cost \$22.50 per ton, making the cost per lineal foot about eleven and one half cents. We use this T rail for cross supports, on which are run the lengthwise rails for supporting the bench bottom. For slate, the rails are placed lengthwise, eighteen inches apart, thus using three lengthwise rails for holding the slate; this gives a side bench three feet wide where eighteen-inch slate is used.

The centre bench is formed in the same way, except that the cross rail is placed on top of the posts, which are bedded in the ground eighteen inches. The side boards are the one weak point in this bench system. They are held in position by galvanized iron straps, which pass through two slits in the board and clasp around the outside rail, thus holding it upright; we use these strips every four feet.

The "American Florist" of July 30 makes this very plain; those contemplating the use of the rail will find an excellent illustration of the plan on page 983.

We have also used clay slabs for the bottom of benches, and like them very much, but they are both heavy and expensive. We think, however, that they might be made by brickmakers in better style and at more reasonable figures, if they could be assured of enough trade to warrant them in making proper moulds and furnaces for their manufacture.

In using slate, care must be taken to select a good quality of one

fourth inch stuff, as occasionally a soft slate is met with that will soften and crumble when exposed to the moisture and heat of a greenhouse. First-quality slate, 18 x 18 inches, costs \$7.50 per 100 pieces, or 3 1-3 cents per square foot, or \$33 1-3 per 1,000 square feet. This makes a cheap bottom when its durability is taken into account. Objection is made to this material for benching purposes, as it is so responsive to heat that it burns the roots when they come in contact with it. Some of the best growers condemn it for this reason: as I have only used it for benching pots, I can neither verify nor disprove the statement.

Red cedar bottoms for holding the soil of Carnation and Rose beds were used with good results, and if this material lasts as well in board as in post form, it will solve the problem of a durable and permanent bottom. We bought posts of suitable length and had them sawed into boards, which cost when ripped \$38 per 1,000 square feet, about double the price of good pine or hemlock. If cedar will last twenty years and pine only four years, it makes a net saving of \$34, to say nothing about the building of the bench three additional times. Often we venture to trust the pine bottom one year more than we should, and to our grief, one board gives here and another there, and fungous growths show throughout the bench.

If clay slabs can be had at a reasonable price, and these placed on iron supports resting on strong piers or posts, then we shall have an ideal greenhouse bench.

For sides of greenhouses, also for roofs and sides of sheds, we use steel sheeting or iron, that pressed into brick form makes a neat and durable siding, especially if lined off in white. We use felt or tarred paper on the boards to which the steel is nailed. It renders the house fireproof from outside influences.

Heating.

I confess to this assembly that the more I experiment in this line the less I know. I have nothing to say on this head, save that we carry the supply steam for each individual house overhead, distributing and returning the same at the farther end in pipes placed under the benches, thus making a complete downward grade from the highest point directly over the boiler, until it is again returned to the boiler. Instead of suspending the pipes or having them expand on wooden supports, we use 3-4 inch iron pipes, which reach from one post across to the other, and work in auger holes about two inches in depth, thus practically making a complete set of rollers on which the pipes expand and contract. The advantage of this is obvious where the piping is laid under the benches. This plan works equally well with steam or hot water.

I have nothing further to say on this point, but there are plenty of specialists in greenhouse heating present, who can doubtless post us up to date on all the latest improvements in this important department.

An additional response on the subject by Mr. J. N. MAY, who had also been designated to reply, was read, in the absence of Mr. May, by Secretary STEWART. It was as follows:—

NEW IDEAS IN GREENHOUSE CONSTRUCTION AND HEATING.

The above question, having been assigned to me, I fear will hardly be treated as it deserves, or as many of the members of this Society could do, for the reason that I have had but little actual experience in this line of late, not having built a greenhouse in four years. This, I doubt not many of you will think, looks like standing still. Well, with the present condition of the cut-flower trade in the East, I think it would be far better if we all stood still for a season or two. In other words, it would be far better for the trade if there was not another foot of new greenhouse constructed for two or three years, for the simplest of all reasons, namely, that the supply exceeds the demand; and every business man in the country understands fully what that means to any trade, and more particularly to ours, whose produce is of such a perishable character. But, with your permission, I will return to the subject named, and give you the ideas I have gained in the past few years by observation.

First, I think we have not yet obtained the *multum in parvo* either in a greenhouse proper or in the heating of the same. Every so-called "modern system" I have yet seen has many points that can be improved upon, both in the construction and heating. That some of them have not many good points about them I am not going to gainsay for a moment, but the perfect greenhouse, or greenhouse heating system, is a thing yet to come, and that we shall see it in the near future is, I think, very probable; for with the enormous demand all over the country in the past ten years for this class of buildings, it has stirred up builders and designers to such a pitch that they are bending all their energies to attain the desired object. Some firms of builders have recently been making considerable improvements in iron and wood combined, using iron posts and iron rafters at about eight feet apart. These are braced together with angle iron purlins front and back, and supported by one column to each rafter, using wooden astrals to bed the glass in. The benches are also supported by iron standards and bearers, making very light houses. The greatest drawback against these is their first cost, which is much too high for the general florist; another thing about them which is detrimental is the liability of the woodwork form-

ing the sides to rot out so quickly from the contact with the iron where moisture can collect.

In the heating of greenhouses the subject is an inexhaustible one. Very much is being continually written upon the subject, yet how few of us really understand the true principles. A few years ago the down-hill (so called from its style of construction) system of circulation of hot water under pressure was strongly advocated by many as much the best way, and many of the writers were so emphatic about its advantages that I adopted it for a range of houses I was then building; but it was an expensive experiment, and after two seasons' trial I changed the whole system to that of carrying the hot water to the highest point at the farthest end of the greenhouses from the boiler, or on just the same plan as is generally followed by circulation under gravity, and any one who will give the subject a little careful consideration will see that it is the only correct principle. Hot water, being much lighter than cold, will always struggle to get to the highest point possible, and have a strong tendency to cling there as long as possible, or till absolutely forced away by a warmer volume. Hence when placing a large pipe directly or as near as possible over the boiler, and from there carrying the pipes on a down grade all through the houses, a very large volume of the heat will be lost in the highest point, where it is absolutely doing no good, hence additional cost of fuel.

Many to-day are advocating steam as the best means of heating, and undoubtedly those who have substituted a good system of steam for a poor one of hot water can find considerable advantage by it; but my advice to those having a really efficient system of hot water heating is to go slow in changing it. But, as I fear I have exceeded the time allowed to answer this question, I will close by advising a more liberal use of COMMON-SENSE in greenhouse building and heating. The day for heavy cast-iron pipe will soon be numbered among the past. Two-inch wrought-iron gas pipe can be put up much easier and cheaper and will do the work equally well, and is very much easier changed at any time it is necessary to do so.

In building a new greenhouse, put it up with the very best material you can afford to buy; build as lightly as possible consistent with strength, using glass fourteen or sixteen inches wide; thoroughly cover every joint with white lead and metallic paint before nailing it together; prime everything thoroughly with the same material, and never let your greenhouse suffer for the want of paint; it adds very much to the neat appearance and much more to the durability of the same.

For all sections south of New York, and where practical, I think a front sash under the front gutter or plate is a valuable addition, more particularly where summer flowers are wanted to be grown in them,

as it helps very materially to keep down the high temperature; but care must be used in the fall, or they may be a positive injury rather than a benefit.

A third response, which had been forwarded by Mr. F. R. PIERSON, of Tarrytown, N. Y., was also read by Secretary STEWART. It was as follows: —

NEW IDEAS IN GREENHOUSE CONSTRUCTION AND HEATING.

I do not know as I will advance any new or novel ideas, but in the short time allotted will try and call attention to what I consider some of the most advanced ideas in reference to greenhouse construction and heating.

The first thing I consider of importance in the construction of greenhouse buildings, in these days of close competition and reduced rates, is durability. As to what expense one would be warranted in going in order to secure such durability, that would depend largely on the capital available; but where circumstances favor, and the necessary amount of capital can be commanded, there is no question in my mind that the best houses in the long run are the cheapest. Heretofore, large profits have induced the cheapest kinds of buildings, the object being to secure the most glass for the least money, many growers saying, "I can well afford to tear down and rebuild the house from the additional profits which the increased glass will afford," but with falling markets and decreased revenues, the time is fast approaching when such loose business methods will only result in failure. With capital at five per cent, to my mind there is no question but what the best greenhouse that can be built is advisable. In the new houses we have just erected, we have used a continuous solid iron rafter running from the ridge to the ground, set in concrete blocks, which makes probably the most durable construction possible, as the iron rafters, being continuous and solid, cannot be affected by decay, and in consequence the roof will remain fixed and solid, although the sides of the building, which are the parts most subject to decay, should become so rotten as to possess little if any strength. What the ribs are to a boat, the rafters are to a greenhouse: any defect in these, and the house soon requires rebuilding.

Our idea in construction has been to secure practically an indestructible rafter, as we consider the life and strength of the house are dependent upon this. Many are now putting considerable iron in the roof in order to lighten it and secure as much sunlight as possible, as it affords the least obstruction to the rays of the sun, being of less bulk, yet are still using wooden posts and plates. In this combination of wood and

iron, a large proportion of the expense of the better house is incurred, and the particular advantages of the entire iron rafter lost, as such a house is but little better than the regular conventional wooden house so far as strength is concerned, as the weak parts of the house are the sides, where the most moisture accumulates and most decay occurs; for no matter how good a roof is, if the posts on which the roof rests become weak through decay, the roof settles, glass breaks, and the house soon becomes practically valueless. Of one thing I am thoroughly satisfied; greenhouse benches should be built entirely of slate and iron, these affording the most desirable materials of which they can be built. Many think that the cost of these precludes their use by the average florist; but I think when the matter is thoroughly looked into, but one conclusion can be arrived at, viz., that there is no question but the use of such benches would show a large profit in every case. There is nothing around a greenhouse which decays so rapidly, requires such large repairs and such frequent renewings as the average bench; so much so, that the average life of a greenhouse bench as ordinarily constructed will hardly exceed five years, and as an average I consider this an outside figure, as when built of the cheapest material as they usually are, three years sometimes is their life instead of five. Aside from first cost, there is one loss occasioned by the frequent renewal of the benches which is very seldom taken into consideration, and that is, the loss of a crop or the partial loss of a crop through the time consumed in tearing down the old benches, cleaning the houses, and erecting the new ones. Let the florist calculate as closely as he will, more time is consumed in this operation than should be, and the result is the house is planted so much later than it ought to be, that crops are very often discounted twenty-five per cent in value, which would pay the entire cost of the best iron bench. Our system of constructing greenhouse benches we consider superior to anything we have ever seen; whether I can describe our method to make it intelligible in a few words or not, is a question. In our iron rafter house a 1 3-4 inch angle iron is bolted to the perpendicular rafter that forms the side of the house at whatever height the bench is to be built. On this rest the 1 1-2 inch T irons, which are used for the cross-bearers of the bench, placed every four feet apart, the front of the angle irons being drilled to receive a bolt to hold the clamp (which is an ordinary cheap casting), which is used as a socket in which the leg of the bench rests, the legs of the bench being made of common one-inch wrought pipe. The cross-bearers are drilled on the upper or T side, front and back, in order to bolt a light 1 3-4 inch angle iron to them, drilled every four feet to correspond. These angle irons are also drilled on the other side for one-inch screws, and to these angle irons yellow pine strips five inches

in width are screwed, forming the edges of the bench. The inner and outer angle iron, by being bolted to the cross-bearers, holds the bench together, and acts as an outer and inner support for the slate. To support the slate between, two light 1 1/4 inch T irons are used, which are placed on top the cross-bearers lengthwise of the house, reversed and between the angle irons at equal distances; these are not fastened in any way to the bearers, which allows them to take up or give a little in case of variation in the slate. Our benches are exact duplicates of each other in width, being three feet and four inches in width over all, taking three runs of slate twelve inches in width, centre beds being twice the width, with a ten-inch walk between. The amount of drilling required to erect such a bench is very slight, and can all be done at any machine shop at trifling expense. Everything used in the construction of such a bench is standard materials that can be procured anywhere, and consequently such a bench is within the reach of all. The only special casting required is a clamp to receive the iron pipes used for legs at the front of the bench. We have set the cross-bearers in our new houses on the angle iron, bolted to the upright iron rafters; of course this could be modified in old houses or houses constructed differently. With locust posts, such an angle iron could be bolted to the locust posts, and the cross-bearers could be lengthened out for a brick wall and inserted directly in the wall, or a back leg could be used, letting the bench set on two legs; but where it is possible to enter the cross-bearers into the brick wall, or where it is possible to fasten the angle iron in a durable way to the sides of the house, it cheapens the bench. One of the most important considerations in a greenhouse is convenience. Everything should be so built that the amount of labor required is reduced to a minimum, as the time is soon to be reached in this business when it will not be a question as to who grows the most stuff, but who can run his place the cheapest, that will come out ahead. Everything that conduces to labor saving is a matter of the most vital importance. In our new greenhouses we have erected we have carried out a great many ideas, which, while not original, embody the most advanced ideas we could glean from our own experience and that of others. Take the question of liquid manure, for instance; we have large vats out of doors that can be reached readily by carts, so that the labor in handling the manure is small. The manure is dumped into these vats from dump carts, and water pumped by steam through a system of pipes into these vats. This is allowed to soak for twenty-four hours or more, when the liquid is drawn off into a slide vat lower than the first; two valves close the pipes, one leading to the first vat, and one from the well from which our water supply is obtained, and the same pipes and the same pump are used to distribute the liquid

manure. We have such perfect control of it that we use weak liquid manure regularly once a week and occasionally oftener, and no more time is occupied than would be in watering the place regularly. The amount of labor saved by this arrangement will be best appreciated when we state that we can now water the place with four men with liquid manure in two hours, whereas by using cans it took four men two days to go over the place before our present arrangements were in operation. The difference in cost between the two methods would make a substantial profit alone in twelve months. In Rose growing a large item of cost is the annual removing and refilling of the soil in which the Roses are grown. We use small tram car wheels and dump cars, the sides of the benches being used as tracks. These cars are made large and run through the centre of the houses, carrying as much soil as a good stout boy can push, more soil than four boys could carry. When emptying a house, several cars are used and two or three men are employed filling the cars. As fast as a car is loaded, a boy propels it to the end of the house, where it is dumped into a cart in waiting and brought back; during the time occupied in running down the first car, a second car is filled up by the same gang of men, which keeps them constantly employed. By the time the second car is filled, the first has been emptied and returned, so by the use of two carts to carry the soil away, and two or three cars in a house, the men are occupied constantly, and the greatest economy secured in labor. Our houses are 304 feet in length, with doors at either end, which necessitates carrying the soil only 150 feet to the farthest point, and this is rapidly reduced as the houses are emptied. This may not be pertinent to the question I am considering, except in so far as the question of construction would admit of the use of such cars, and for this reason I consider it pertinent. An idea seldom thought of, but very important, is the location of the walks and the purlins with reference one to the other. We use drip bars, which we consider a decided advantage, as they reduce the drip in a house very much, but the question of the location of the purlins with reference to the walks, even with the use of drip bars, is still a matter of vital importance, especially where high-grade Roses are grown. Drip in midwinter on Roses, such as La France or American Beauty, will often destroy flowers worth fifty cents to one dollar each. By locating the purlins over the walks, almost every bit of drip in the house that would do any damage could be obviated by such location of the purlins: this is possible, as in our new houses none of the purlins are over the benches. Some will say there should be no drip in a properly constructed house, but we find the drip that causes the damage is that produced from condensation from zero and midwinter weather, and not that which comes in from out of doors. That

is something that should never occur, and never does when a roof is in proper condition, as it should be.

Much has been said and written about overhead heating pipes, but from what we have seen in other places and from our own experience we have nothing to say in favor of this system. In the first place, it disfigures a house: then they are in such a position it is almost impossible to avoid striking them with water when syringing, creating steam, which is a serious disadvantage, as it bleaches high-colored Roses, and tends to soften foliage, and is decidedly detrimental to healthy plant growth. Then it is impossible to place the pipes in such position that they will not, some time or other, be in a position where the plants are likely to strike them, and much damage often ensues. We experimented with them in our old houses when first advocated, but they have all been taken down for reasons just given. We believe the use of overhead mains, as commonly used in distributing the steam from the far end of a house, does not secure the best results. We have adopted on our place what we consider an original plan for the distribution of steam, and after a year's experience can hardly see how it can be improved. As I have already stated, our houses are 304 feet in length, and detached. In order to do away with the necessity of carrying steam the entire length of the houses, two houses, each 304 feet long, are heated in pairs, the boiler-room for each range being situated between two houses, and midway from either end. The steam mains and returns are, by this plan, reduced to a minimum, each being only fifty-eight feet in length: this main is situated in a trench below the walk through the centre corridor, which is used as a connection between the separate houses, making access to each house very convenient, the boiler-room doors being connected on the corridor. We consider the central location of the boiler-rooms a matter of the greatest importance, for several reasons: first, we have no large mains filled with dead steam, the flow-pipe, as I said before, being fifty-eight feet in length, and this controls 600 running feet of house. It must be borne in mind that fires are kept for the greater part of the time in moderate weather, and in order to have steam available there must be a pressure on the mains. If but one or two pipes are used in a house, long mains are not economical, for no matter how perfectly they may be insulated, there is always a large percentage of condensation taking place, and that means loss of coal, and expense. From the central main, pipes are run to either end of the house, returning back on the opposite sides of the house, which makes each circuit some 325 feet, which is about as far as steam can be carried to any advantage under low pressure. Every pipe throughout its entire length is then a flow-pipe, and is brought into the return, which is located three feet below the flow-pipe

in the trench beneath the central corridor; the flow and return mains are entirely out of sight, and the steam pipes entirely beneath the benches. Every pipe has exactly the same duty to perform, and one pipe is the exact counterpart of the other, so that each pipe works exactly the same: each pipe takes steam exactly the same, and there is no complication of any kind. No noise is ever heard, and steam can be circulated practically with no indicated pressure. A feature of this system is the location of the valves, both the flow and the return valves being in the corridor, so that the men, in turning on and off pipes, are not obliged to travel long lengths of houses if there is a sudden change in the temperature. We consider this system, when properly applied and built under the best scientific principles, to be the best system of steam heating for the commercial florist of to-day, especially for Rose growing, as the heat can be controlled at will. In Palm growing, from what experience I have had up to the present time, my preference would be for hot water, as it is necessary, in the profitable growing of Palms, to carry a trifle of heat during the summer; and I believe hot water can be run, when very little heat is required, cheaper than steam; but in all other cases, I should give steam the decided preference. A matter that suggests itself, in reference to the subject under consideration, is the destruction of green fly. Considerable was said last year about evaporating liquid tobacco. We were decidedly sceptical as to the advisability of evaporating tobacco juice, as we were afraid the moisture generated would tend to bleach American Beauty Roses, of which we are very large growers, and for that reason we experimented with it some time before adopting it generally. Our experiments were satisfactory, and we fitted our whole place with pans for the evaporation of the tobacco juice, and after one year's experience can recommend it thoroughly. Galvanized iron troughs, about three feet in length and four inches in width and depth, were fitted to the steam pipes, the steam pipes running through the troughs. By letting the steam pipes run through them close to the bottom, the liquid is evaporated very much more quickly than if the troughs were placed on the pipes, evaporating in about two hours. This should be used more as a preventive than a cure, for if the house was badly infested with green fly, it would take some time to remove them, but used regularly and constantly, no green fly will ever appear. We have saved hundreds of dollars by the use of this simple remedy, and have demonstrated entirely its desirability beyond all question.

We consider it a great advantage to take the chill from water before using for watering in mid-winter. In watering we use a steam pump to pump the water, and the plan we use in tempering the water we think is as good as can be devised, where steam power is used. The

distribution pipe after it leaves the pump is thrown into an ordinary galvanized hot water boiler, such as is used in kitchens, entering at the bottom, the outlet being at the top. Through the centre of this heater or boiler a coil of one and one fourth inch pipe has been introduced, containing about fifty or sixty feet. The exhaust steam from the pump is thrown into this coil, and in passing through it completely condenses, heating the water to a temperature of about fifty-five or sixty degrees in the coldest weather, which is about the normal temperature of the house. The advantage of this scheme lies in the fact that exhaust steam is absolute waste, and the lost heat is thus utilized. It is a very practical adaptation, from this fact that there is no exhaust steam unless the pump is going, and then the water is circulating, the two conditions being inseparable. This will be of very little value except to a limited number, but where the conditions exist, it is a very satisfactory and cheap arrangement. The danger in putting steam heating pipes through the heater would be, that when the water had stopped passing through the heater, it would soon become so hot as to incur danger in its use, as it would soon be raised to a boiling point. It would not be as economical as our plan, where nothing but lost steam is utilized to heat with.

It is very difficult, in the limited time permitted in a paper of this character, to treat such a subject as this at all satisfactorily or thoroughly. I hope that the few ideas here given, however, may be of interest to some.

Each of the foregoing responses was heartily applauded.

Mr. WILLIAM L. HERENDEEN, of Geneva, N. Y. Mr. President, I have been a member of this Society and have attended its Conventions for three years, but I do not remember having heard in that time any discussion on the subject of heating greenhouses. I was much pleased to see by your programme that new ideas on the subject were to be advanced to-night; but I must confess that, with the exception of those in the paper last read, no new ideas have been promulgated this evening. I regret that the florists regard the matter of properly heating greenhouses as of so little importance as to give it only a few moments near the end of their closing session, and to talk upon it but once in three years. It seems to me that, when the price of coal is as high as it is now, more attention should be given to new ideas in heating greenhouses. Since 1888 I have been somewhat instrumental in heating considerable more than two million feet of glass, and have come to this Convention to learn something new on the subject. In conversation to-day, a prominent florist, one who, I believe, has more glass than any other in this country, advanced a new idea, one to which Prof. Taft and I took exception, in regard to the use of very cool smoke when he

used hot water under pressure. Now, hot water under pressure is a good means for heating a greenhouse, but I do not believe it is possible to have cool smoke when you have hot water under pressure, because you cannot very well dismiss your smoke at a lower temperature than that of your water. If you carry five-pound pressure, your water is two hundred and twenty degrees hot, and that is rather too warm to be known as "cool smoke." Hence I do not think it is possible to have a very economical system in that way.

The speaker here complimented Prof. Taft, of the Michigan State Agricultural College, as one who had given more time to, and had acquired more knowledge of, greenhouse heating than any one else. He concluded by asking that the gentleman referred to be called on to address the meeting.

(NOTE. — The gentleman named not being present, the speaker then called on Mr. P. R. Clemons, of Syracuse, N. Y., but no response was made.)

THE WORLD'S FAIR.

Mr. JAMES ALLISON, the representative of the World's Fair management, being here presented, expressed his appreciation of the valuable co-operation of the committee of the Society, with which he had been associated for two days. He said that he desired also to express his thanks to the members of the Society in general for similar effective co-operation. He requested that a copy of the committee report concerning a representation of floral interests at the World's Fair, which had been adopted this evening, be furnished to him, so that he might embody it in the general report to be submitted by him to the management on his return to Chicago.

The PRESIDENT informed Mr. Allison that Secretary Stewart would supply him with any material required by him.

THE QUESTION BOX.

The PRESIDENT announced, as the next question in the Question Box, the following, "Is the growing of plants for exhibition purposes in parks detrimental to the commercial interests?" the answer to which was assigned to Mr. Thorpe.

Mr. JOHN THORPE replied: I take great pleasure in replying to this question. I will say this, that it is to the advantage of all commercial establishments that bedding and exhibition plants should be grown in public parks. From these parks the people are educated to a love of flowers. If there was no opportunity to give them this education, there would never be any demand for the plants and flowers that are grown. It is an injury to the public welfare to impede the progress of horticulture. The public parks educate the people in every sense of

the word. The question is equally as unreasonable as it would be to ask, "Is it a good thing to build a stable, and not have a horse to put in it?"

The PRESIDENT. The next in order of the questions is the one as to the best method of tempering hydrant water.

Mr. JOHN N. MAY (at eleven o'clock p. m.) said that as the audience was apparently anxious to retire, he would move that the remaining answers to the questions be deferred and be printed in the annual report.

The motion was adopted without objection.

Invitations were here given by Mr. John Chambers to participate in the excursion of to-morrow, and by Mr. Quinn tendering facilities to delegates intending to return home via Ottawa.

The Convention then adjourned.

FOURTH DAY.

Friday, Aug. 21, was devoted to recreation, the members of the Society with their ladies having been invited jointly by the Toronto Gardeners' and Florists' Club, and a committee of the city government of Toronto, to a sail on the lake. After the labors of the Convention, the members were not slow to accept the generous offer of their hosts, and when at 11.30 a. m. the good steamer "Enrydice" started out from her dock, she carried a most gay and happy party. The weather was all that could be desired, and the bracing air, the charming view of the coast, the music by the band, and the impromptu selections by various musically inclined members, were all thoroughly enjoyed. Arriving at the Exhibition Park, a banquet was found all ready spread in one of the large halls, for which the invigorating air and pleasant company had well prepared the guests. After justice had been done to the spread, toasts and speeches followed. "The Queen," "The President of the United States," "The Mayor and Corporation," "The Society of American Florists," "The Ladies," "The Toronto Gardeners' and Florists' Club," all received due attention, and brilliant responses were made by many eloquent gentlemen.

The finale was the presentation to President M. H. NORRIS of a handsome silver tea service, by his many friends in the Society, the presentation speech being made by Mr. WILLIAM SCOTT, of Buffalo. Mr. NORRIS accepted the gift in a brief but appreciative address.

After the banquet there was a game of cricket on the grounds adjoining, and later those present were grouped and photographed.

WILLIAM J. STEWART, *Secretary*.

THE AMERICAN CHRYSANTHEMUM SOCIETY.

The annual meeting was held in the Convention Hall, at Toronto, Thursday morning. President John Thorpe occupied the Chair.

The report of the Secretary is as follows:—

List of varieties registered in the fall of 1890 and spring of 1891:

By Thos. H. Spaulding, Orange, N. J.: Mrs. D. D. L. Farson, Clancy Lloyd, Mrs. Kendal, Mattie C. Stewart, Anna M. Weybrecht, Lizzie Cartledge, Mrs. R. J. Baylis, Lily Bates, John Firth, Charles Canfield.

By Mrs. E. M. Gill: Mrs. Dudley C. Hall.

By Messrs. Pitcher & Manda, Short Hills, N. J.: Astoria, Atlanta, Colorado, Delaware, Dr. Chas. Brigman, John Dyer, Josephine Schlicht, Michigan, Ontario, Oswego, Tyro, W. W. Lunt.

Single varieties.—Catawba, Chicopee, Colhasset, Daisy, Jumbo, Mariposa, Minerva, Moravia, Mrs. G. B. Topham, Orizaba, Stella, Tuscola, Ulysses, Washita, Wichita, and Louis Boehmer (this appears to have been imported by Messrs. Peter Henderson & Co., also).

By Peter Henderson & Co., New York: Louis Boehmer, Bride of Roses, Golden Plume, Sunray, Garden Queen, Santa Claus, and Dawn (this is reported as being identical with V. H. Hallock).

By Elijah A. Wood, West Newton, Mass.: James H. Freeland and Mrs. E. W. Wood.

By John Lewis Childs, Floral Park, N. Y.: Mrs. John Lewis Childs and Cardinal Sunshade.

By Thomas Laurence, Ogdensburg, N. Y.: Champlain, Canton.

By Nathan Smith & Son, Adrian, Mich.: Yonitza, Aristine Anderson, Oeta, Alcazar, and Robert Flowerday.

By Fred Dorner, Lafayette, Ind.: Mistletoe, Mermaid, Innocence, Evaluen Stein, Eda Prass, Emma Dorner, Mattie Bruce, and Anna Dorner.

By H. Waterer, Philadelphia, Pa.: Eldorado, Kate Rambo, Mrs. Herbert A. Pennock, Mrs. John Westcott, Mary Waterer, and M. P. Mills.

By George W. Miller, Wright's Grove, Ill.: Lyman J. Gage, George R. Davis, J. V. Farwell, Cyrus H. McCormick, Andrew McNally, Potter Palmer, Fred. W. Peck, Charles H. Wacker, Robert A. Waller, Chas. T. Yerkes, S. W. Allerton, Martin A. Ryerson, and Fred. S. Winston.

By C. D. Kingman: Kildare, Leather Stocking, Alpha, Eglantine, Dorothy Tennant, Warsaw, Rosalie, Blushing Maid.

By George Hollis, South Weymouth, Mass.: Edith M. Hollis.

Captain Crosbie, Nain, California, Warrior, Weymouth Belle, Newton's Favorite, Crimson Globe, Jessie K. Crosbie.

By J. C. Vaughan, Chicago, Ill.: Beacon, Charles Henderson, J. C. Vaughan, Pandanus, Mrs. A. Rogers, Tremont, Target (Shenandoah), Waban, Clara James, C. Hartwig, Mary Moran.

By Edwin A. Seidewitz, Annapolis, Md.: My Maryland, The Sun, The American, The Herald, The News, The World, The Journal, The Correspondent, Adele, Lord Baltimore, Ancient City.

By E. G. Hill & Co., Richmond, Ind.: August Swanson, Flora Hill, Frank Thomson, C. W. DePanw., Philip Breitmeyer, Mrs. Isaac D. Sailer, Sugar Loaf, R. Maitre, Mrs. J. G. Whildin, John Goode, Emily Dorner, Elmer D. Smythe.

European varieties of recent introduction: Sunflower (pronounced by good authorities to be identical with Swanley Yellow), Stanstead White, Mrs. Falconer Jamison, Etoile de Lyon, Mad. Ferd. Bergmann, Cesare Costa, Rose Laing, Cleopatra, M. Victor Patallier, and Sabine Mea.

The following list is reported as meritorious, they having been disseminated within the past two years: H. E. Widener, Roballion, Etoile de Lyon, Shasta, John Lane, James R. Pitcher, Ada Spaulding, Flora McDonald, E. G. Hill, Mrs. William Bowen, Violet Rose, Mrs. J. T. Emlen, Miss Minnie Wanamaker, Ivory, W. H. Lincoln, Kioto, Mrs. Alpheus Hardy, V. H. Hallock, Auriole, Mrs. Benjamin Harrison, Mrs. W. Baker, Mrs. W. Sargeant, Mrs. Hicks Arnold, President Harrison, and Rose Queen.

There were others reported, but as they were only sent out in the spring of 1891, it was thought too soon to put them on record.

List of varieties reported as being of doubtful value: Aranza, Brunhild (poor grower), Clara Rieman ("too single and a poor grower"), Edwin Lonsdale (poor color and weak grower: the disseminator declares that it will show to better advantage this year), Model (too small), Piquant (too single), Hon. S. Brown (the Hon. John Welsh and John Thorpe, both similar in color, are said to be much better), Spiratis (single), Snow Crest (small), Indiana (small), Golden Fleece (small), Tri. de l'Exposition de Marseille (malformed flowers), White Cap (water-marked n. g.), E. H. Fidler (weak grower), We Wa (not as strong as Mrs. C. Wheeler, which it resembles in color), Golden Burr (too small), Mohawk (poor color), Tecumseh (poor grower), Mrs. C. Dissel, Cyclone, Mrs. Carnegie, are all condemned as poor growers. There were also several reported in this list that had not been generally distributed. It was therefore deemed advisable to hold them over for another year's trial.

List of members is as follows: John N. May, Summit, N. J.:

W. J. Palmer, Jr., Buffalo, N. Y.; D. D. L. Farson, Philadelphia, Pa.; John Lane, Chicago, Ill.; Robert Craig, Philadelphia, Pa.; Ernst Asmus, West Hoboken, N. J.; W. G. Bertermann, Indianapolis, Ind.; W. K. Harris, Philadelphia, Pa.; John Hartje, Indianapolis, Ind.; Ansel T. Simmons, Geneva, Ohio; George C. Watson, Philadelphia, Pa.; Robert George, Painesville, Ohio; E. Herbert Tong, Erie, Pa.; E. G. Hill, Richmond, Ind.; Grove P. Rawson, Elmira, N. Y.; George Hollis, South Weymouth, Mass.; W. A. Manda, Short Hills, N. J.; James Morton, Clarksville, Tenn.; W. W. Coles, Kokonac, Ind.; Elijah A. Wood, West Newton, Mass.; Edwin A. Seidewitz, Annapolis, Md.; M. A. Hunt, Terre Haute, Ind.; J. M. Jordan, St. Louis, Mo.; O. P. Bassett, Hinsdale, Ill.; George Gardner, Hinsdale, Ill.; John D. Inlay, Zanesville, Ohio; John Thorpe, Pearl River, N. Y.; Edwin Lonsdale, Chestnut Hill, Philadelphia, Pa.

Amount received for membership fees,	\$56.00
Disbursements,	12.80
	<hr/>
Balance on hand,	\$43.20

President THORPE stated that the report of the proceedings of the meeting held at Buffalo had been handed to one of the horticultural papers for publication; only a few extracts were published and the report had not been returned, nor, after repeated attempts to get it returned, had he met with any success.

It was agreed to establish a classified list of Chrysanthemums according to the American standard, and Mr. E. A. Wood was appointed to prepare such a list to be submitted to the American Chrysanthemum Society at its next meeting for action.

Judging from the experience of the past, it is likely that every greenhouse in this favored land will have seedling Chrysanthemums, which are thought by the proprietors to be worthy of a name. It is earnestly requested that such names be registered with the Secretary as early as possible, thus avoiding the possibility of a duplication of names. The American Chrysanthemum Society has done some good in the past in this way, and it rests with raisers and disseminators of new varieties themselves, if it continues in this good and important work.

List of officers: President John Thorpe, Pearl River, N. Y.; Vice-President, W. K. Harris, Philadelphia, Pa.; Treasurer, John Lane, Chicago, Ill.; Secretary, Edwin Lonsdale, Chestnut Hill, Pa.

EDWIN LONSDALE,

Secretary American Chrysanthemum Society.

APPENDIX.

REPORTS OF COMMITTEES ON EXHIBITS.

COMMITTEE ON BULBS AND SEEDS.

Your Committee on Bulbs would respectfully recommend that honorable mention be awarded to Pitcher & Manda, of Short Hills, N. J., for large display of bulbs, comprising sixteen varieties. Their *Lilium longiflorum*, *Lilium candidum*, and White Roman Hyacinths are extra fine.

We would also recommend that an award of honorable mention be given to H. A. Dreer, of Philadelphia, for his display of bulbs. His Paper White Grandiflorum, *Lilium Harrisii*, and Freesias are excellent.

J. A. Simmers, of Toronto, shows some very large *Lilium Harrisii* and other varieties of bulbs.

F. E. McAllister, of New York, shows *Lilium Harrisii*, *Lilium longiflorum*, and Roman Hyacinths.

J. C. Vaughan, of Chicago, exhibits *Lilium Harrisii* and other bulbs, besides a lot of Dutch bulbs comprising about forty varieties, which were detained in the custom house, and he was unable to display them in time for judging. We, however, recommend honorable mention for them.

Your committee would respectfully suggest that, in future, all bulbs be placed side by side, to facilitate the work of the judges.

Respectfully submitted,

ERNST ASMUS.
I. FORSTERMANN.
J. M. GASSER.

COMMITTEE ON BOILERS AND GREENHOUSE CONSTRUCTION.

Herendeen Manufacturing Company exhibits on large, brick-set Furman boiler, one smaller surface burning boiler, both for hot water. The vertical circulation of the water, and the manner of the circulation of the draught through the back tubes as it enters the chimney, point to great economy of fuel.

E. C. Gurney Company exhibit hot-water heaters. They are strong, compact, and simple in construction, easy to clean. Good circulation is secured by three water columns. Arrangement of heating surface is very good.

W. P. Wight exhibits bench tile, made of material well adapted to allow perfect drainage. For planting on, it seems the best thing we have seen. Certificate of Merit awarded.

Edw. W. Holt exhibits rubber hose of different sizes, armored and plain, also rubber aprons, etc. These goods could only be judged by actual use.

E. Hippard exhibits model of ventilating apparatus applied in three ways, outside, inside, and side ventilating; operating wheel can be adjusted to any angle, quick and even in operation, and not liable to accident.

Quaker City Machine Company exhibits ventilating apparatus, easy of action and simple in construction. The iron work is well finished. The mode of fastening wheel to the shaft is the best we have seen.

Davis & Son exhibit a large variety of flower-pots, seed-pans, and vases, apparently hard and strongly made, though of light color.

George Plant makes a creditable exhibit, including standard pots very nearly correct in size, also well-finished hand-made pots and vases of large size.

A. H. Hews & Co.'s exhibit of flower-pots did not arrive in time for exhibition.

Lockland Lumber Company make an exhibit of a section of greenhouse, and samples of sash-bars; equally as good as exhibited by this company before.

Warden King & Sons exhibit one Spence Water Heater, strong and simple in construction and easy to keep clean.

Detroit Flower-Pot Manufactory exhibits samples of standard pots that are well made, and correct in measurements.

Essex Heights Floral Company exhibits double-jointed galvanized steel glazing points, strong and easily applied, there being no rights and lefts.

W. H. ELLIOTT.

JOHN BURTON.

HENRY DALE.

F. G. FOSTER.

EDWIN A. SEIDEWITZ.

COMMITTEE ON CUT FLOWERS.

We note the following exhibits:—

Henry A. Dreer, Philadelphia, collection of Petunias. Certificate of Merit.

C. H. Allen, Floral Park, N. Y., collection of Gladioli. Certificate of Merit.

Fred Mitchell, Innerkip, Ont., collection of Tuberous-rooted Begonias. Certificate of Merit.

W. H. Elliott, Brighton, Mass., *Asparagus plumosa*. Certificate of Merit.

The Cannas from H. A. Dreer, Philadelphia, are a very fine exhibit, and worthy of special mention.

The exhibit of two varieties of Water Lilies from Wm. Tricker, Dungan Hills, N. Y., is also worthy of special mention.

The new Canna exhibited by A. Gilchrist, of West Toronto Junction, is considered by the committee as possessing some merit, but owing to want of foliage, habit could not be determined.

A collection of Pansies exhibited by J. D. Inlay, of Zanesville, Ohio, is good for the season of the year.

WM. K. HARRIS.
WM. W. EDGAR.
HENRY YOUNG.
JNO. H. DUNLAP.

COMMITTEE ON FLORISTS' SUPPLIES.

We note the following exhibits:—

Cefrey Florist Letter Company, Boston, Mass., florists' letters.

D. B. Long, Buffalo, N. Y., floral photographs. Honorable mention.

N. Steffens, New York, wire goods. Honorable mention.

G. B. Wilcox, bouquet-holder. Handy and useful.

M. F. Gallagher, Chicago, paper boxes.

C. S. Ford, Philadelphia, immortelle goods.

W. P. Wight, Madison, N. J., growers' cut-flower shipping box. Certificate of Merit.

J. A. Simmers, Toronto, Ont., best display of miscellaneous florists' supplies. Honorable mention.

H. Bayersdorfer & Co., Philadelphia, best exhibit of florists' supplies. Honorable mention.

J. C. Vaughan, Chicago, exhibit of miscellaneous florists' supplies. Honorable mention.

F. E. McAllister, florists' supplies.

Adam Dunn, Gault, Ont., lawn rake of merit.

W. C. Krick, display of immortelle letters. Honorable mention.

Bunyard's improved Chrysanthemum cut-flower exhibitor. Honorable mention.

ROBT. KIFT.
P. WELCH.
C. J. TIDY.
CHAS. L. DOLE.
J. A. PETERSON.

In the case of Messrs. Bayersdorfer, their display of florists' supplies was thought by the committee to be the best, and to consist entirely of supplies suitable for a florist's store.

The display of J. A. Simmers consisted of *miscellaneous* florists' supplies, that is, store supplies and greenhouse necessities as well. The committee thought it would be better if they could in future be entered separately, as greenhouse supplies are not, strictly speaking, florists' supplies, as many firms make a specialty of baskets, designs, immortelles, and the like, while others, who do not keep a line of these goods, have shears, thermometers,

knives, syringes, and goods of a similar nature. In Messrs. Simmers's and Vaughan's displays there were also bulbs of various kinds.

ROBT. KIFT, *Chairman*.

COMMITTEE ON PLANTS.

Your committee desires to say that all of the exhibits in this department show that plant growing is in a progressive way, and that all of the exhibits are worthy of mention, more particularly a collection of Orchids shown by Pitcher & Manda, of Short Hills, N. J. This collection comprises *Cypripedium superbum*, *C. concolor*, *C. calurum*, *C. Schlimii*, *C. Dominicanum*, *C. Sedeni*, *C. Druryi*, *C. oenanthum*, *C. Curtisii*, *C. Harrisianum*, *C. hirsutissimum*, *C. Crossianum*, *C. Crossianum superbum*, *C. Spicerianum*, *C. Hookeri*, *C. longiflorum*, *C. selligerum*, *Miltonia spectabile*, *Cattleya Harrisoni*, *C. Dowiana*, *C. trianae gigas*, *C. crispa*, *Odontoglossum crispum*, *Od. Bictonense*, *Od. Bictonense alba*, *Oneidium papillio*, *On. sparhillatum*, *Lycaste aromatica*, *Laelia majalis*, *Saccolabium Blumei majus*, *S. Sanderianum*, *Phajus Humblotii*, *Zygopetalum Gautherii*, *Phalenopsis grandiflora*, *P. amabilis*.

This collection was awarded a Certificate of Merit.

Other awards made were as follows: —

To Pitcher & Manda, Short Hills, N. J., a Certificate of Merit for stove and greenhouse plants.

To Pitcher & Manda, a Certificate of Merit for specimen of *Pteris Victoria*.

To Manton Bros., Toronto, Ont., a Certificate of Merit for specimen of *Pteris Hallamii*.

To H. A. Dreer, a Certificate of Merit for collection of Palms and Ferns.

Honorable mention was given to the following exhibitors: —

Cottrell Bros., Toronto, Ont. ornamental plants.

Robt. Craig, Philadelphia, Pa., Palms and other decorative plants.

The committee desires to state that Edwin Lonsdale, Chestnut Hill, Philadelphia, John Burton, Chestnut Hill, Philadelphia, Miss M. E. Coffin, Astoria, L. I., and F. G. Heind, Terre Haute, Ind., have fine exhibits of Palms and other decorative plants, showing superior cultivation. A new *Canna* exhibited by A. Gilchrist resembles the form known as *tricolor*.

JOHN THORPE.

JOHN F. COWELL.

SAM. GOLDRING.

F. L. HARRIS.

F. L. TEMPLE.

WORLD'S COLUMBIAN EXPOSITION.

TORONTO, August 19, 1890.

Minutes of Meeting of Special Committee of the Society of American Florists, held at Queen's Hotel, Toronto.

Members of committee present: Messrs. John Chambers, Toronto; J. C. Vaughan, Chicago; Frank Huntsman, Cincinnati; F. L. Harris, Boston; J. M. Jordan, St. Louis; Robert Craig, Philadelphia; John N. May, Summit, N. J.: and others.

On motion, Robert Craig, of Philadelphia, was chosen Chairman: and J. C. Vaughan, of Chicago, Secretary.

Chairman CRAIG, when calling the meeting to order, said:—

We are met together here for consultation with Mr. James Allison, acting Chief, Department of Horticulture, World's Columbian Exposition, to advise him concerning the views of this organization in regard to what steps should be undertaken in the Horticultural Department at the coming World's Fair.

(At this time, Mr. Jordan, of the committee, introduced Secretary Noble of the Department of the Interior, who made a few remarks expressive of his interest in this department, and then withdrew.)

The following is the substance of the remarks as made by various members of the committee:—

Mr. CRAIG. The donation of specimen plants by public-spirited citizens ought to be of much assistance to the department. If such a movement was properly inaugurated, there would be a noble response. Such noted amateurs as Mr. Hunnewell, of Boston, George W. Childs, of Philadelphia, and others would loan valuable specimens from their large conservatories, which would aid in making up a collection which money could not buy. A fine *Latania* growing at Newport, twenty feet in diameter, was offered to the Philadelphia Public Grounds, but was refused for lack of room. There are many places where such plants could be had if proper steps were taken.

Money must also be expended freely for large specimen plants which are not obtainable in this way. Tree Ferns from the tropics must be procured: Crotons from Cuba, which can there be had thirty feet high and upwards. This latter stock cannot be secured by donation, but must be purchased, and will cost in addition heavy freight and packing charges.

The feature of outdoor planting must not be overlooked. Plenty of room must be given to this department.

Immediate action: foreign plants especially require time to become established.

We have received from Mr. Allison the impression that the World's Columbian Exposition, of 1893, will be on a scale never before attempted, and we realize that in the Horticultural Department a great effort must be made, otherwise this Exposition will lack harmony and completeness.

Mr. FALCONER (superintendent of Charles A. Dana's establishment at Glen Cove, Long Island). We all know the enormous number of plants required to fill the space named by Mr. Allison. If you fill it well, it will look well; if scantily, the result will be a failure. You must go to China for Bamboos: to the West Indies for other tropical plants which cannot be obtained elsewhere. They must be had in quantities and in very large

sizes. Agents of the department must go and lift these plants and get them established, or they will die and present a sorry appearance at the time of the great show. It will cost money to secure these specimens. They must be nursed in Chicago for a year prior to the opening of the Exposition. Many of the lesser plants can be had here, but you cannot pick up desirable stock at the roadside. Plants of any size, to be worthy of exhibition on this occasion, must be selected ones. These must be bought and paid for and well cared for, all of which costs a good deal of money as well as time.

In France, in 1889, they had only to draw from private conservatories. Many plants would be loaned here. We have among amateurs, whose greenhouses are of very magnificent sizes, few plants exceeding ten to twelve feet in height.

You must not have too many duplicates.

All native plants suitable to the summer climate at Chicago should be shown out of doors. Plants for economic uses, the Cinnamon and Pepper tree and like species, should be shown in great variety.

Mr. SIEBRECHT, of New York. Bamboos can be secured in the West Indies if they are taken up with balls carefully wrapped, and the tops cut back to some extent: they would in one season re-establish themselves. Much must be done for grand decorative and spectacular effects, and in no way horticulturally can this be so well accomplished as with these mammoth specimens from the tropics, with which few of the people of the United States are familiar. Many of these are worth going one thousand miles to see. Some of them are fifty feet high and upwards. Such would create a sensation at the Fair.

Crotons: these are best moved by digging trenches about the roots some little distance away, and then cutting off the long roots; after standing three months in this condition, they could be shipped, if taken up with a ball of earth. Tree Ferns can also be had in the West Indies, and some from the island of Dominica, which could be made to stand transportation fairly well, and at a less price than from Australia.

Mr. CRAIG. It will certainly be a revelation to the people of this country to see what size these tropical plants assume in their native habitat. It goes without saying that something phenomenal must be presented at the Fair.

Mr. HILL, of Indiana. I think a serious mistake will be made if plenty of outdoor room is not provided. At Paris different nurserymen were allotted space for outdoor display, which attracted as much attention as the indoor exhibitions: for instance, collections of Clematis were shown in from fifty to two hundred kinds; Roses in lots of from one to one and a half acres; and the noted three exhibitions of ten thousand plants each out of doors, besides many smaller ones. New plants can thus be inspected side by side, which is of special interest to all horticulturists, and I regret to hear that outdoor space is scarce.

THE QUESTION BOX.

Owing to lack of time and other causes, a number of inquiries taken from the "Question Box," to which answers had been prepared, were not called up at the regular sessions. The several questions, with their answers, are here recorded.

"How can we best profit by the demand at special seasons?"

To enable the grower of plants and flowers to best profit by the demand at special seasons, he must have a clear knowledge as to the requirements of the market at special seasons, and put that knowledge to practical use months before the plants and flowers are ready for sale; he must also be a thorough plant-man and be competent to grow his plants and flowers so that they will be at their best at the special season grown for; if too early or late in bloom, his object will not be realized, that is, the best profit at special seasons.

The retailer or seller of plants and flowers must also know the wants of the market at special seasons, to enable him to purchase his supplies, to enable him to fill his orders at short notice, and be able to show his customers a stock of seasonable goods of superior quality. He must be a good judge of the quality of plants and flowers, a careful buyer, ready to pay a fair price for a good article, pass the poor plants and flowers at any price, sell at a fair profit on his investment, and by a strict attention to his business will best profit by the demand at special seasons.

JAMES DEAN.

"Growing roses for summer use?"

In most sections through the Eastern States of late years, the growing of Roses in the open ground, to depend on anything like a continuous crop of good flowers, has become almost a failure from various causes too complicated to explain here; and where this is the case, and good flowers being in demand, I would advise planting one or more houses specially for this purpose, according to the requirements and room at command.

To insure a good crop of flowers, prepare the benches in the same way as for winter cropping, as early as possible in March; then select good strong plants of such kinds and numbers as required, plant them out about twelve inches apart each way, grow on liberally, but keep the buds picked off till all the other Roses on the place are almost through blooming, or till a large quantity are required. By this time the plants will have made good strong growths, and be ready to produce fine flowers. After planting as above, and the plants have made a good start, it will greatly help them to give the whole surface of soil a good mulching of well-decomposed manure; before doing so it would also be beneficial to give a light dressing of *pure ground bone*, covering the same with the manure. Keep the house fumigated with tobacco frequently to keep down green fly.

etc., syringe freely on hot days, and as soon as flowers are wanted give a very light shading. I prefer equal parts in weight of dark green ground in oil and white lead, adding enough kerosene to make a very thin paint or wash; then with a bevel-head brush and long handle, put enough on the glass to obscure the strong rays of the sun.

During the whole progress of their growth the house should have all the air possible on favorable days, and during July and August considerable air should be left on all night: this will insure strong, sturdy growth and fine buds. A house of Roses treated thus can be kept in fine bearing till after New-Year's, when it can be cleared out and other crops brought in, to be again replaced with Roses for the next summer and fall crop. The varieties most suitable for this purpose are: Marie Guillot, white, a very fine summer Rose; Meteor, dark red, extra fine; Madam Pierre Guillot, a lovely Rose, shaded yellow and pink, which does not burn in hot weather like Watteville; Perle des Jardin, bright yellow; Souvenir de la Malmaison, flesh color and very sweet. Bride and Mermet will also do very finely under such conditions. Several other fine varieties could be added to the above, but each grower will, undoubtedly, be able to judge what sorts will suit his purpose best.

As soon as the night temperature in the fall begins to run a little below sixty degrees, a very little fire heat at night, with a little air kept on, will greatly help to keep the plants healthy, and to continue bearing freely.

Where the above system is impracticable, I have found the following varieties do fairly well in the open ground: Papa Gontier, Marie Guillot, Clothilde Soupert, Meteor, Princess de Radziwell, Malmaison, Mrs. Degraw, Aggripina, Duchess de Brabant and her daughter, Madam Joseph Schwartz, all very beautiful varieties, and very free bloomers under favorable circumstances. To insure success, good plants should be set out in very rich, well-prepared beds as soon after frost is out of the ground as it is practical to get the soil into a healthy working condition; and should dry weather prevail, a good mulching of some light material will greatly help them to produce a continuous crop of flowers.

JOHN N. MAY.

“The best varieties of Gladioli for forcing?”

In answer to this question, I would say that the forcing of Gladioli is very unsatisfactory, owing to the large number of bulbs that throw no flower-spike.

I have tried a few every winter during the past five years, and have decided to try them no longer, as I find the percentage of good flowers so small that it does not pay for the trouble.

The best results have been obtained by forcing two-inch bulbs very late the first year, planting them in six-inch pots during the winter, and starting them in a cool house to make roots.

For March they can be removed to a warm, sunny bench, and flowered by June or July. After flowering, the bulbs should be gradually ripened in the pot by withholding water, and in October, if the bulbs are in good condition, they can be potted in a light rich soil, and placed for a few weeks in a cool house. As soon as signs of growth are observed, they should be placed in a greenhouse having a night temperature of sixty-five degrees, and a day of eighty degrees.

A crop of flowers should be had in February or beginning of March. The best varieties for forcing are the following:—

Shakespeare.	Cicero.
Brenchleyensis.	Snow White.
Isaac Buchanan.	Baroness Burdett Coutts.
Eugene Scribe.	Flamboyant.
La Candeur.	Le Vesuve.
Marie Lemoine.	Le Filien.
Napoleon III.	Pepita.
Addison.	Enfant de Nancy.
Mme. Monneret.	Ceres.

JOHN H. TAYLOR.

“To insure the best circulation in steam coils, is it necessary to take the return or drip pipes below the water line before connecting them?”

To insure positive circulation, the main return pipe should enter the boiler below the water line. It is not necessary for the return pipe of each coil to be carried below; but each drip pipe taken from the main steam pipe should be taken separately, and connected below the water line, thereby forming a seal which prevents the live steam from circulating through the return end of the coils. If this is not done, the coil would take steam at both ends, which would cause it to become air bound in the middle, and stop circulation.

F. W. FOSTER.

“Is it best to use a check valve in the main return?”

There should be on the main return pipe to every boiler a main valve; *also a check valve*. The former should be close to the boiler, the latter next to it. The main valve is a necessity; without it the water would have to be drawn from the boiler, when changes or repairs in the piping were necessary.

“The advantages of a check valve?”

1. In case of an accident, whereby one of the return pipes should leak, it will prevent the water running out of the boiler, and save the same from being burnt or otherwise injured.

2. Without it, if you should open the valve on return end of coil before you did the steam, the tendency would be to fill the coil with water through the return pipe from the boiler.

F. W. FOSTER.

RESOLUTION.

Resolved, That we, the ladies of the Convention, desire to tender to the ladies and gentlemen of the Toronto Florists' and Gardeners' Club our most cordial thanks for the kind courtesies and social favors tendered us while in Toronto.

(Signed)

Mrs. M. H. NORTON, Boston, Mass.

Mrs. ROBERT CRAIG, Philadelphia, Pa.

Mrs. C. B. WHITNALL, Milwaukee, Wis.

Mrs. J. M. GASSER, Cleveland, O.

Miss BOEST, Cleveland, O.

Mrs. ELLA CAMPBELL WILSON, Cleveland, O.

And others.

LIST OF MEMBERS FOR 1891-1892.

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Reed, C. H., Birmingham.

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*Deceased.

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INDEX.

	PAGE
Welcome by Mayor of Toronto,	5
Judge Hoitt's Response,	12
President Norton's Address,	15
Report of Secretary,	19
Report of Treasurer,	21
World's Columbian Exposition,	22
Essay — Future of Floriculture in America,	29
Question Box — First Day,	32
Meeting Gardeners' and Florists' Clubs,	39
Selection of Place of Meeting,	42
Nomination of Officers for 1892,	44
Essay — Subtropical Bedding,	48
Essay — Aquatic Plants,	50
Meeting of Florists' Hail Association,	53
Meeting of Florists' Protective Association,	56
Election of Officers,	57
Essay — Credits,	59
Essay — Store Trade,	63
Horticultural Congress,	68
Essay — Winter-Flowering Plants,	71
Recognition of Members,	75
Bowling Contest,	78
Essay — Begonias,	79
Report of Nomenclature Committee,	84
Essay — New Carnations,	99
Review of New Plants,	103
Exhibit at World's Fair,	145
Final Resolutions,	147
Annual Meeting American Chrysanthemum Society,	162
APPENDIX. Reports of Committees on Exhibits,	i
World's Columbian Exposition,	v
Question Box,	viii

