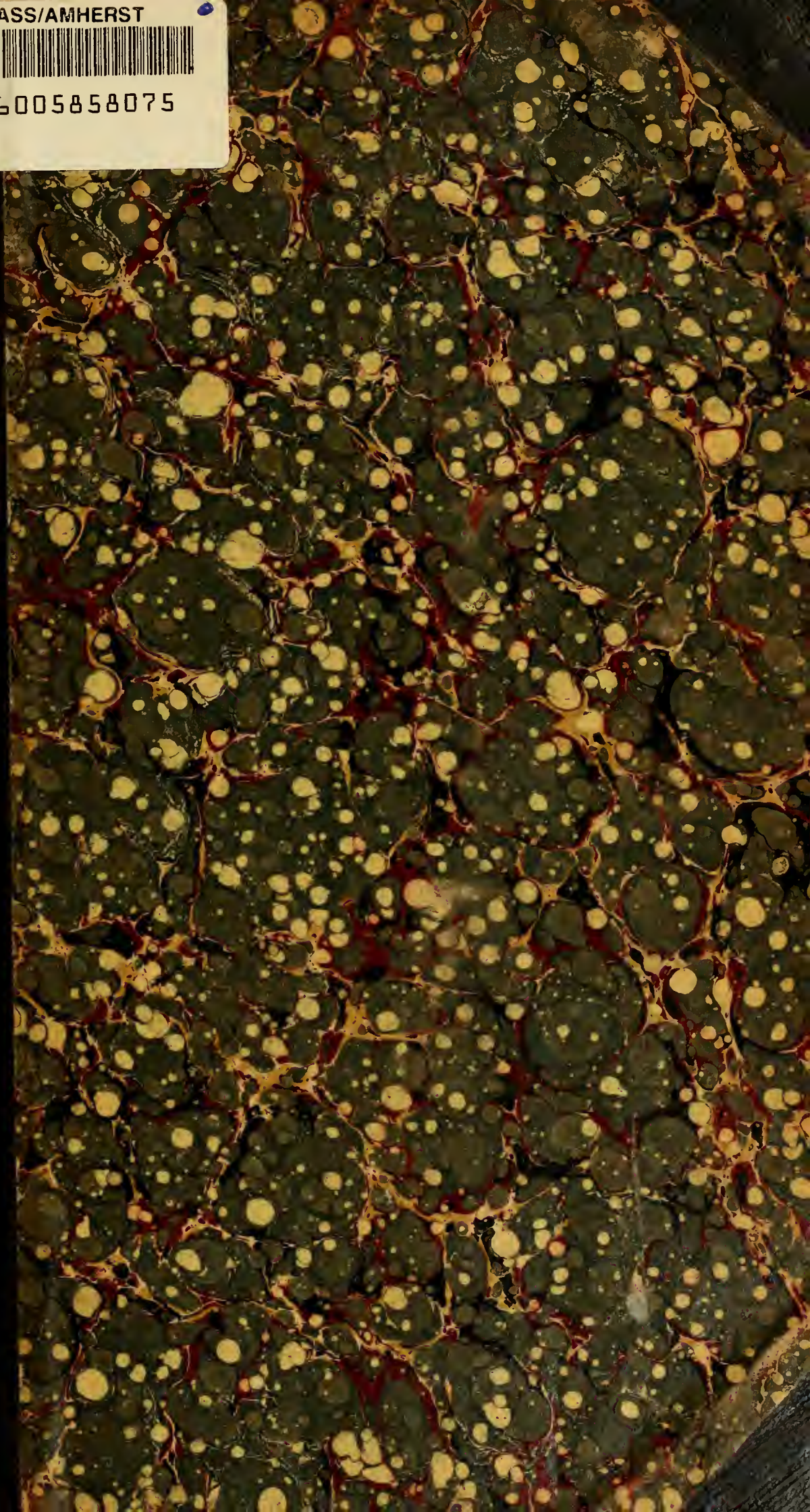


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W. R. Smith



PROCEEDINGS

OF THE

EIGHTH ANNUAL CONVENTION

OF THE

SOCIETY OF AMERICAN FLORISTS,

HELD AT

WASHINGTON, D. C.,

August 16th, 17th, 18th and 19th,

1892.

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PUBLISHED BY ORDER OF THE SOCIETY.

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# OFFICERS

OF THE

## SOCIETY OF AMERICAN FLORISTS.

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For 1892.

President: | Vice-President:  
JAMES DEAN, BAY RIDGE, N. Y. | W. R. SMITH, WASHINGTON, D.C.

Secretary:  
WILLIAM J. STEWART, BOSTON, MASS.

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

Executive Committee:

*For One Year.*

WM. FALCONER, Glen Cove, N. Y.  
JOHN BURTON, Chestnut Hill,  
Philadelphia, Pa.  
D. B. LONG, Buffalo, N. Y.

*For Two Years.*

W. A. MANDA, Short Hills, N. J.  
P. WELCH, Boston, Mass.  
H. W. BUCKBEE, Rockford, Ill.

*For Three Years.*

C. W. HOITT, Nashua, N. H.  
J. H. DUNLOP, Toronto, Ont.  
J. T. ANTHONY, Chicago, Ill.

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For 1893.

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D. C. | Mo.

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J. T. ANTHONY, Chicago, Ill.

*For Three Years.*

Three members to be appointed by the President-elect, on January 1, 1893.



# PROCEEDINGS.

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NATIONAL RIFLES' ARMORY BUILDING,  
WASHINGTON, D. C., Tuesday, August 16th, 1892.

At the appointed hour for the preliminary proceedings, the handsome convention hall was thronged with delegations from every section of the country. Many of the delegates were accompanied by ladies. The platform, partly hidden from view by a profusion of palms, ferns and ornamental foliage plants, presented the appearance of a tropical forest in miniature; a woodland scene in the background being supplemented by fine collections of cycads, specimen ferns and musas. The walls, windows and doors of the hall were gracefully festooned with smilax and palm leaves from the South.

Among those who had assembled to formally welcome the Society to the Capitol City were Hon. JOHN ROSS, Commissioner of the District of Columbia; Hon. EDWIN WILLITS, Assistant Secretary of Agriculture; and members of the National Gardeners' Club of Washington; who, with the present officers and former Presidents of the Society of American Florists, occupied seats on the platform. Mr. WM. R. SMITH, (Vice-President of the Society of American Florists,) on behalf of the National Gardeners' Club of Washington, introduced the representatives of the District and National Governments, and temporarily occupied the chair.

## FORMAL GREETINGS AND THE RESPONSE.

Hon. JOHN ROSS, Commissioner of the District, upon being introduced, said:—

*Ladies and Gentlemen,*—The people of the District of Columbia say to these worthy representatives of the Society of American Florists, you are welcome to the city of Washington. There is probably no other city on the continent where floriculture receives more attention or has more enthusiastic followers than in the city of Washington. This, no doubt, is largely due to the fact that the Government of the United States has so much to do with the beautifying and adornment of our Capitol City; but, in my own opinion, this result is due somewhat and perhaps very largely to a member of your own Society, one of its promoters, the

honored Superintendent of our Botanic Garden ; who is an enthusiast not only upon the subject of cultivation of flowers but also with regard to the preservation of trees. It is related of him, that on one occasion, when a citizen asked to have a certain tree removed which he thought interfered with the free access to his residence of the light and air, the question was referred to the Parking Commission, and after deliberation they decided that it was not necessary to remove the tree ; then the word came back from the citizen, "Either that tree must be removed or I must move my house." The story is that the answer given to him was, "Move the house." [Applause.] As chairman of the Parking Commission, that commission which has done so much to adorn these streets and avenues with the leafy monuments of their taste and skill, — monuments which will endure long after the members of that body have crossed the dark river,— Mr. Smith, by his Scotch pluck and firmness, preserved from destruction many of the natives of the forest which were planted in the city of Washington. [Applause.]

I doubt not that you are all enthusiasts in your laudable work. Your vocation is one of which you may well be proud. Your industry is one which gives work to an army of worthy men and women. It is a field of employment which is almost limitless in the way of investigation and experiment. It affords the means of profitable investment to millions of capital. It not only brings wealth and comfort to the producer, but it enlarges and cultivates the sense of the beautiful among the people. It brings to the homes of the rich and of the poor its blessings of brightness and of fragrance, and it softens and beautifies the hard ways of human existence. I do not know that you ever thought of it, but it seems to me that the product of your skill attends nearly every event in life. The flowers which you cultivate are used at the christening of the infant ; they are used when the young girl graduates ; they are used to emphasize friendship and voice the language of love ; they are used to adorn the bride at the altar and to compliment the statesman and the orator ; and when the last sad rites are performed, mute sorrow and bereavement find no form of expression so grateful as the floral tributes which adorn the casket containing all that is mortal of those we love.

Mr. President, it affords me especial pleasure to extend a cordial welcome to those honored representatives of your Society who so well and in such a hospitable manner entertained this Society at its last annual meeting, in the city of Toronto. Let us be grateful that there are common interests which can unite in closer bonds of friendship and esteem all who dwell upon the North American continent. [Applause.] Permit me to assure our friends from the Dominion of Canada that we appreciate all of their courtesies to our people, and that we will endeavor to reciprocate them in every way in our power.

Now that you are to be entertained by a representative of the Federal government, I will not longer detain you from the important work before

you, but wishing for your deliberations great success, I thank you for your courteous attention.

When the manifestations of appreciation which followed the greeting of Commissioner ROSS had subsided, Chairman SMITH prefaced his introduction of the representative of the Department of Agriculture, as follows: We have all read of the three goddesses, and that wherever these were worshiped, civilization advanced. They were Agriculture, Horticulture and Floriculture, but the greatest of these was Floriculture — she who elevated the æsthetic souls of the nations that were devoted to her, and she who has proved to be the grandest elevator of the human race. We have here a representative of all three, the Assistant Secretary of Agriculture, whom I now introduce to you.

Hon. EDWIN WILLITS, Assistant Secretary of Agriculture, here came forward and was cordially received. His remarks, which were interspersed with applause, were as follows: —

*Mr. President, Ladies and Gentlemen,* — To me has been assigned the pleasing duty of welcoming you to Washington in behalf of the Department of Agriculture. It is not inappropriate that this great and growing department should be assigned a place in your deliberations, for floriculture is a part of horticulture, and horticulture but a segment of agriculture — the one great industry that has in all ages enrolled in its ranks a majority of the world's population. Agriculture, horticulture, floriculture, all allied to culture, in fact based upon culture, not simply the manual labor attending this culture, but culture in the higher and broader sense. There is reason in the fact that the world has generally placed literature and floriculture in near relationship to its culture and civilization. The one pertains to the mind, the other appeals to the finer senses. As the higher culture finds its home in the finer sensibilities, it goes to literature on the one hand and to floriculture on the other hand to seek its highest gratification in the natural and physical world.

There is but little of this culture in the mine or in the workshop, for the reason that in neither is there a scope for cultivation. Cultivation implies that nature is to do most of the work, is to perfect the work after the tillage — the stone goes on after the hand is withdrawn. The mine and the shop comes to a standstill while the workman slumbers. Culture, you will recollect, is not a creative quality — it is only an assistant to nature and to genius. There is always an element of growth in culture or attending it, growth from a source other than itself. Kings have tinkered clocks and statesmen have had their workbenches, but they there sought relaxation, not growth. The relaxation in literature has growth in it; the labor in the garden has life in it, the pulse and throb of growth. There is a sort of companionship in life, whether in a flower or an animal, but none in a machine. Engineers sometimes tell us that there is

companionship in an engine, that each engine on the track has a character, that some engines are lucky and some unlucky, that some respond readily to the human touch, and that others, even from the same shops and supposed to be counterparts in every respect, are dull and sluggish, and there sometimes seems to be almost an affection between the former and the human being who guides it. But in the opening bud, as it bursts in beauty to the sunlight, there is almost the same look of intelligence, to him who can read it, as in the eye of the young animal; there is life in it that responds to the life in the man or woman who cherishes. How often we hear our good wives call their flowers their pets, their children. There is companionship with them that whiles away many monotonous hours. Bacon had them on his table as he wrote his philosophy; Decartes had them by his side as he sought the stars and the laws that swing them in their orbits; the great Conde fondled them in the midst of his military campaigns. The ancients were as alive to them as we are — sometimes I think more so — for the reason that they stood nearer to nature than we. Listen to what one of them said:

“Who does not love flowers? They embellish our gardens; they give a more brilliant lustre to our festivals; they are the interpreters of our affections; they are the testimonial of our gratitude; they are often necessary to the pomp of our religious ceremonies, and they seem to associate and mingle their perfumes with the purity of our prayers and the homage we address to the Almighty. Happy are those who love and cultivate them.”

Floriculture, as before said, is not the whole of horticulture. The latter is defined as the most perfect method of tilling the earth so as to produce the best results, whether the products are objects of utility or beauty. It is the acme of agriculture, with more culture in it of the kind we are discussing than in agriculture, for the reason that there is more personality in it, more cultivation and a finer grade of products. There is but little scope for taste in a farm — they are all of the same type. There are no two gardens, however, alike; there is individuality in them. Whatever calls for taste has culture in it, whether it be a house, a room, a garden, a dress or a bonnet. Whatever calls for harmony in detail and results, whether in a landscape, a garden or garment, has culture in it.

There is no culture, however, in the incongruous, whether in a garden or a parlor. I refer to this not in a carping spirit, though I think we are drifting too much away from nature in forcing the climate in the selection of our plants. In my judgment the cardinal principle for our gardens and landscapes is to secure the best selections of indigenous plants, shrubs and trees, or such as may readily adapt themselves to our latitude and to their surroundings. Our cultivation may be too dear, may cost too much, and prove no culture at all, in the end. A hardy climate



should have hardy plants. Strawberries in their season — not in January. A thousand dollar orchid, or a hundred dollar tulip, or a twenty-five dollar cactus may please for a costly plaything, but for a genuine pleasure that you can sit down and keep company with give me the plants that feel themselves at home, so to speak. Not that I would discard entirely the plants of the tropics, but I would put them where we put the wild beasts from the same regions, behind the bars, to be gazed at as curiosities or as objects to be studied. How many of our ladies spend their time and energies, and, should I say it, waste their affections, on some dwarfed, scragged, ill-shaped house plant that shivers at the howl of the icy blast, and bears, it may be, or may be not, a puny little flower, a dwarf in its northern home, no, not home, but habitation, when in its native home it riots in hedgerows.

But I dare not enlarge, as I may cross some of your fancies or offend some one's taste. I cannot, however, help adding that if it is culture you are seeking do not try to raise oranges in Michigan. Culture, I repeat once more, is the fitness of things, and there I would stop but for one further suggestion I have on my mind, and that is that I rejoice in the tendency among florists to utilize more and more the grasses for our yards and lawns. What would not the denizens of the tropical latitudes give for our grass plats! What a foil they are for tree and shrub and flower. A well-kept lawn in its velvety green is the fittest of fit things for our climate. I sit before my window as I write these words, and look across the park with its winding drives and walks, its trees clothed in a foliage as finely tinted as the tropics can show, with its sweep of grass and verdure and its beautiful flowers, with the towers of the buildings in distance just overtopping the trees. I am satisfied, not exuberant, but solemnly satisfied, solidly pleased. In the distance I can see the glass of the greenhouses, but I rarely visit them, and then only to see the show; but when I wish to rest, to find that culture that comes from our best thoughts, I sit on my porch and look the landscape o'er.

Culture is the product of association. It has many partners and may be found in many lines of business. It is rarely the dominant partner; generally unseen, unrecognized, very frequently not consulted; but we will specially note the fact that when the balance sheet is finally struck this silent partner is on hand, and it is found that the dividends bear a singular proportion to the capital invested by this silent associate. What are good manners but the bright coins of this investment? What is that urbanity which makes intercourse so agreeable; that diplomacy which steals where force and fraud would fail; that cordiality which wears its frankness on the sleeve; that consideration which says the fit thing at the fit time, that blunts the barb of criticism and slander; that purity which palsies the foul tongue; that composure which can step to the bedside of the nervous invalid and calm him to slumber; that self-

reliance which faces an audience without fear ; that self-poise which, as Emerson says, "gives the mind possession of its own powers ;" that something which is as the oil of gladness to the soul ?

This is the culture which the Department of Agriculture does not ignore, but which it solicits as a companion to the grosser culture that subdues the earth and marshals the elements necessary for food production. We welcome every influence that shall ameliorate the hard tasks of mankind, and most heartily welcome you, ladies and gentlemen, who more than almost any other association represent the refining duties and influences of a culture that is associated with nature in her most inviting aspects. [Applause.]

Mr. E. GURNEY HILL, of Richmond, Ind., on behalf of the Society of American Florists, made the response to the addresses of welcome. He said :

*Mr. Commissioner, Mr. Secretary, Ladies and Gentlemen,* — We have been delighted by your earnest and hearty welcome to this beautiful city of Washington, and we thank you most heartily for this tender to us, by you, of the hospitality and freedom of the Capitol City.

We have caught glimpses of your magnificent avenues lined with splendid trees, your open spaces and parks dotted with shrubbery and planted with flowers ; and we are prepared to believe that you have not told one-half of the truth concerning the beauties of the capital of our great Republic. Indeed, I never before quite understood why so many of the citizens of my own beloved commonwealth were so anxious to make this city their place of residence. Even the most distinguished of Indiana's sons is not averse to a further residence of four years with you ; and I note that the distinguished gentleman who is at present fishing and sojourning off the Massachusetts coast, was so charmed with his four years of residence with you, that he too, like the distinguished gentleman from Hoosierdom, wishes to duplicate his four years of life with you. There is cause, however, for patriotic congratulation in the reflection that, whichever of these two gentlemen comes to Washington next March, he will add lustre to American citizenship and greater honor to this fair city. [Applause.]

We have looked forward with pleasure and delight to this happy day — the day when we would assemble together at the capital of the nation. We have come with three distinct purposes in view. The first is, that we may have an interchange of thought concerning the experiences of the past year. We have problems to solve and difficulties to overcome. From all over this great country and from Canada we have come here, to meet in annual assembly, that we may decide questions that confront and perplex us. In other words, we come together that we may learn wisdom, one from the other. In the second place, we

gather here for recreation and pleasure and to renew old acquaintance. Our boys (and some of them are quite "old boys") come to bowl balls and knock pins; some of the younger men come to woo young maidens fair, and the young maidens come to be wooed. We make confession to all of these things. Our third purpose in gathering here, in the city of Washington, is that we may do honor to one of your own citizens — a man who has lived in your midst for over a third of a century — a gentleman who has contributed more to horticultural knowledge and botanical science than perhaps any other in the country. We take delight in thus being able, here in the city of Washington and at his own home, to testify to the worth and work of our own First Vice-President, the Superintendent of the Government Botanic Gardens, Mr. William R. Smith. We have benefitted by his kind and interested counsel and advice. Ever since the inception of our organization we have drawn upon his storehouse of information time and again; and we have noted that, as the years have grown upon him, he has grown more genial in heart and broader in mind, and feel that we are honoring ourselves in thus honoring him.

Our Society is international in character. We have with us this morning a goodly number from the Provinces of Ontario and Quebec. We are proud of our Canadian brethren, because they are the peers of any on this side in regard to cultural skill, knowledge and moral worth. I believe that they represent a very fine type of Anglo-Saxon civilization; and on their behalf I thank you for your eloquent words of welcome.

The history of floriculture on this continent is creditable alike to the American people and to the florists; to the people for their appreciation of the products of our cultural skill, and for their willingness to pay remunerative prices; to the florists for their persistent efforts to raise the standard of excellence in the face of the great difficulties incident to the country's industrial developments. It is only within the past twenty years that practical floriculture has attained place and position in the commercial world.

The struggles and triumphs of the florist's profession are matters of knowledge to most of the gentlemen present this morning; but a better day has dawned, and in all modesty I assure you that floriculture and floricultural art are destined to play an important part in Anglo-Saxon civilization.

Unnoticed, perhaps, by many of our fellow citizens, the cultural skill of many of the gentlemen here present has an important influence upon art and upon the younger generation of artists. The studios and picture galleries give unmistakable evidence of this; varieties of roses, chrysanthemums and other flowers and plants are drawn and painted with a faithfulness to outline and color undreamed of a generation ago. The highest and most perfect development of the rose is wrought by the

consummate skill of American rosarians under the roofs of American greenhouses, and they furnish models of artistic excellence for brush or pencil.

I repeat again that we are glad to be present in this magnificent city — a city that is representative of the best thought and noblest impulses of American life — rich in its history and associations; we glory in the development here of all that makes Washington great and grand; we are proud of this city because it has given a home to Washington, Jefferson, Madison, Lincoln, Garfield, and other noble men; we hope it may grow in grandeur and beauty until it shall shine forth as a diamond in the fair circlet of cities that shall compass the earth with a girdle of Anglo-Saxon civilization.

Again I thank you in behalf of the officers of this Society, the membership, the ladies who accompany us, and myself individually, for your cordial greeting to the Society of American Florists.

Mr. HILL's response was accompanied and followed by long continued applause.

#### PRESENTATION OF A GAVEL.

At this point, Vice-President SMITH presented to President DEAN a neatly formed and substantial looking gavel made of wild cherry wood grown at Mount Vernon, the home of Washington. He explained that the gavel was a gift to the Society of American Florists from the gardener at Mount Vernon, who presented it as an evidence of his love for the floral art, and his admiration for the workers engaged therein.

The communication accompanying the gift concluded as follows :

“That the spirit of “Our Washington” may smile approval upon a body of men who are engaged in such a noble calling, and who have done so much to cultivate a love for the beautiful, is the wish of

Yours fraternally,

FRANKLIN A. WHELAN.”

President DEAN returned the thanks of the Society for the appropriate gift, and, in their behalf, expressed his appreciation of the generous motive of the donor.

#### PRESIDENT'S ADDRESS.

President DEAN here assumed the duties of the chair and proceeded to deliver the annual address. His remarks were listened to with absorbing interest and were frequently applauded.

The address was as follows :—

*Ladies and Gentlemen, Members of the Society of American Florists,*—It is a pleasant duty which custom has assigned your presiding officer, to open the business part of our annual meeting with an address

upon such subjects as, in his judgment, merit your consideration for the well-being and advancement of our Society, and for the elevation of its aim to the extent of improving the calling of floriculture.

The presence of this large and intelligent audience here assembled at our eighth annual meeting, shows the extended interest which our Society has awakened among floriculturists of the country. Many of you have come from long distances, undergoing the discomforts of summer travel, that you might gain and impart knowledge, and discuss the recommendations presented to you, with a view to their ultimate realization. It is to be especially hoped that the essays so carefully prepared for presentation to this meeting will receive the attention they deserve, and will call out discussions which cannot fail to be of great benefit to us in our business.

We open this Convention under the most favorable auspices ; our roll of membership is steadily increasing ; our treasury shows a most creditable balance. The business, both of the retailer and grower, during the past year, has surpassed that of any previous year, and there is a steadily growing demand for a better grade of plants and flowers. Especially is this noticeable in the high grade of plants required for bedding purposes — such as Crotons, the new French Cannas, Tuberous Begonias and aquatic plants.

Since our last annual meeting the interests of our Society have been pushed by an able Executive Committee, and as a result it was hoped that we would be able to convene for the first time under the protection of a national charter ; but it was found impossible to secure its consideration by Congress at its last session. It is hoped, however, that the bill will be called up next December and passed.

Permanent rules and regulations have been adopted, governing our trade exhibits held in connection with our annual meetings, which are intended to so aid the manager in the classification of the various exhibits, and so facilitate the work of the judges, as to enable the exhibitors to display their certificates of award on the evening of the first day.

The offering of gold, silver and bronze medals by the Society to the originators of new hybrids or novelties raised from seed, or for the discovery and introduction of new species that are decided improvements over existing varieties, should be an inducement to our floriculturists to persevere in hybridization and cross breeding of plants, with the view of obtaining new and better forms.

These advancing steps of the Society show its growing strength and unity. But we must not rest here ; we must continue to advance. We must gather members from all classes concerned in horticulture ; from the growers, from the florist supply men, from the dealers in cut flowers, from gardeners, and last but not least, from the employees of all these classes. We must continually draw closer the bond of our common weal

and by our unity and high purposes be a power for good, not only for the benefit of florists, but also for the benefit of their patrons. We must as a national organization encourage and aid the organized efforts of our state horticultural societies and kindred associations.

The amount of work accomplished during the past ten years by these societies is not as well understood as it should be. The great improvements made in the chrysanthemum, rose, carnation and many of the other flowers, can be traced directly to the high standard of excellence adopted at their exhibitions; in this connection we are pleased to note the progress being made by the Chrysanthemum and Carnation Societies formed within our own membership, each with the special purpose of improving the class of plants and flowers it represents. I would earnestly recommend the closest affiliation between these associations and the main Society. We are about to organize a "Rose" Society, with possibly an "Orchid" Society, and at the rate we are advancing we may soon have a "Palm" Society and a "Fern" Society. The danger is that we may so divide our forces as to weaken ourselves and in some degree impair our usefulness, unless these sub-societies work hand in hand with the parent association. The important meetings of the auxiliary societies will doubtless be at the time of our annual meeting, when the widely scattered members can conveniently get together. It is confidently expected that these experts in each special line will be enabled to do good work in the departments, and I suggest that a review of their work and of the latest developments should be embodied in a report by one of the members, selected for the purpose, to be read as part of the proceedings of this Society; in this way can the latest and most complete information in each line be given to the whole association.

The Hail Association is now established in permanent usefulness, and the Protective Association has proven to be of great benefit.

Our advance as a Society must be commensurate with and excel the advance of floriculture, which, during the past twenty years, has been phenomenal. The trade has now assumed colossal proportions in America. The characteristic features of this advance are the erection of better plant houses, the adoption of improved methods of cultivation, the growing of specialties, a more general employment of labor-saving devices, and a noticeable increase in the mental alertness and business ability of florists. These have today brought floriculture to be a leading industry of the country.

From the census of 1891, we learn that the number of commercial establishments in the United States devoted to floriculture, are 4,569; that they have in use 38,823,247 square feet of glass; that their value, including tools and fixtures, is estimated at a total of \$40,000,000; and that they give employment to 16,847 men and 1,958 women, who earned in wages, during the year, \$8,483,657. The sales of plants, during that year, amounted to \$12,036,477.76; of cut flowers, to \$14,175,328.01, a

total of \$26,211,805.77. These sales were those of commercial establishments alone, and take no account of the large number of plants and flowers grown and used in private establishments.

I wish, now, fellow members, to call your attention to two urgent needs of our profession, felt for years by every florist in the country, and which it is in the province of this Society, if not to supply, at least to agitate until agitation shall culminate in realization. I refer, first, to the need of a college where a scientific training, combined with a general business education, can be had for our young florists; second, to the need of an experimental station to which florists can refer the vexed questions that constantly arise in the practice of their profession. These needs have been clearly outlined by former presidents of this Society. I believe the time has now come for action on the subject.

In floriculture, as in any other profession, the beginner needs a proper training. As a rule, we have grown solely in practice, with no knowledge of the scientific possibilities of plant cultivation. Ignorance of the correlative laws that govern plant demand and soil supply, balks us at every step, and has retarded the general advance of floriculture many years. It forbids the advances we long to make and leaves us helpless in the face of great possibilities. Another burden under which we labor is the lack of practicable business methods. This lack is the cause of many a dollar wasted or lost, and of the scarcity of rich men in our profession. We need a college to remedy these two failings, from which the coming generation of florists may issue trained in the science of their calling, and in the business methods so necessary for success in any walk in life. We also need an experimental station such as the Department of Agriculture has instituted in nine of the States of the Union.

The florist is perplexed with some question pertaining to the constituent parts of the soil and how best to adapt their chemical actions to the needs of the growing plants. Or the florist discovers a new variety and wants it classified and named. He would turn to the experimental station with the assurance that his perplexities or new discoveries would be carefully considered. But why should not the laboratories of the college where the students pursue their study in floriculture under the direction of the professors, be of itself the experimental station which we so much need? That, fellow-members, is the key-note of my recommendation. Under one head and in one institution can be established the college and station. The laboratory that fulfills the needs of the students could be utilized to meet the needs of the florists. The students and professors alike would form the working corps of the station. Indeed, what better material could be provided for the laboratory researches of the students than that supplied by the army of inquisitive and eager florists throughout the country? Such an institution would be of untold value to our profession. It would be

the organized centre of investigation and training, and the impetus it would thereby give to making discoveries and to disseminating the knowledge of plant life would establish floriculture as a science as well as a trade. I cannot urge upon you too strongly the beneficial results to be obtained by providing for these two urgent needs of the florist. I therefore recommend that you appoint a committee to investigate the feasibility of this plan, or any plan providing for the training of young florists and meeting the needs of an experimental station, and to report how they can best be put into execution.

It is to be hoped that the Society will take some action in this direction. It may be found by the committee that union with horticulturists in this matter would be advisable, and that a college and station for both floriculturists and horticulturists, could be planned on a much broader basis than for floriculturists alone.

The coming of the World's Fair next year calls for our serious attention. The horticultural and floricultural exhibits there will surpass in magnitude any of the like nature the world has ever seen before. The Horticultural Building, which is now complete and ready for the reception of plants, is the largest building ever erected for an exhibit of plant life. It behooves us, as a society and as individuals, to see that every aid is extended to ex-President Thorpe, who has charge of the exhibit, in making it worthy of the occasion and of the country. Our State vice-presidents, and State horticultural societies and kindred associations should see that their respective States make a creditable display and assist in every way possible the departments of horticulture and floriculture in preparing for their exhibit. A chief difficulty to be met is that of obtaining and transporting specimen plants of sufficient size to show well in a building of such immense proportions.

It should be the endeavor of every one interested in floriculture to secure such specimens. There are many public-spirited citizens owning desirable plants, who, if they knew of the need of the exhibition, would gladly loan or give them to the department if relieved of the cost of transportation and of the work entailed in packing and shipping.

I strongly urge the State and local societies to do their utmost towards securing such plants, and to see that transportation shall not be lacking.

And now comes the saddest part of my duty, to report the loss by death of ten of our members during the past year. Some of these had been closely identified with the Society since its organization and invariably took an active interest in its welfare. Their wise counsels and familiar faces will be sadly missed at our annual meetings.

To the press in general, I desire to extend the thanks of our Society for the unvarying courtesy extended to us. Our trade papers in particular, I wish to thank for their untiring and successful efforts in behalf of our Society and of horticulture.



## SECRETARY STEWART'S REPORT.

The PRESIDENT announced as the next business in order the reading of the Secretary's Report for the year 1892.

Secretary STEWART promptly responded by reading his report as follows :—

*Mr. President, Ladies and Gentlemen,*—It becomes my pleasant duty to add to our lengthening history as a Society, the record of another year of advancement, and to congratulate you on the steady development which is fitting us for future achievement in the great field which is peculiarly our own.

The Convention at Toronto, in 1891, was a most successful one and the attendance large, considering the small extent of the local horticultural industry, as compared with that in the thickly settled localities where most of our meetings had previously been held.

The published report of the meeting contained one hundred and ninety-two pages, fifty-two more than that of the Boston meeting which preceded it, proving that the predictions of an industrious session for 1891 were well founded.

Among the notable features of the meeting were the invaluable report on nomenclature by Mr. WM. FALCONER, the recommendation of Mr. JOHN THORPE for the position of Chief of Floriculture at the Chicago Exposition, which doubtless had much to do with his subsequent appointment, and last but not least, the welcome and hospitality we enjoyed at the hands of our generous Canadian brethren.

The Executive Committee met, according to custom, in this city last January, the session lasting three days. Among the many matters discussed and acted upon were the needs of the horticultural department of the World's Fair; the incorporation of the Society of American Florists; the necessity of a more systematic management of our trade exhibition; our relations with the various auxiliary societies which have been springing up in our midst; the limit to which the indulgence in sports and recreation may be encouraged in connection with our meetings; the reduction of express rates on plants and flowers, and the adoption of a set of medals to be awarded to originators or discoverers of new and improved species and varieties of plants.

The number of members of 1890 who have failed to respond for 1891, is two hundred and fifty-one. Whole number of dues collected for 1891, was eight hundred and twenty-seven. Of this number, one hundred and thirty-two were new names. The new members came from the various States as follows :—

From Pennsylvania, twenty-four; New York, twenty-two; Canada, twenty-two; Massachusetts, sixteen; Illinois, nine; New Jersey, seven; Michigan, five; Kentucky, four; Ohio, three; Alabama, Connecticut,

District of Columbia, two each ; Arkansas, California, Florida, Indiana, Maine, Maryland, Minnesota, Tennessee, Utah, Virginia, Vermont, West Virginia, England, one each.

The number of deaths in the Society reported since we last met is ten. Jens Larsen, Indianapolis ; F. Lucien, New Orleans ; J. W. Page, Medfield, Mass. ; J. H. Butterfoss, Lambertville, N. J. ; James Taplin, Maywood, N. J. ; Albert Benz, Douglaston, N. Y. ; S. Davies, Utica, N. Y. ; E. H. Rath, Flushing, N. Y. ; Chas. T. Starr, Avondale, Pa., and J. A. Salzer, La Crosse, Wis.

For the first time, in accordance with the vote of the Executive Committee, we have an official registry book for the members, which all are requested to sign today.

Another innovation of this year is the abandonment of hotel headquarters, and centering of all the interests, committee meetings, etc., in this building. This change will doubtless meet with special approval by the exhibitors.

It is gratifying to be able to state that we have received more consideration and better terms from the railroads than ever before.

The officers of the Society and the members in general have all placed your Secretary under great obligations to them for their courtesy and kind assistance, which have been freely extended at all times.

A vigorous round of applause followed the report, when on motion of Mr. D. D. L. FARSON, of Philadelphia, the same was accepted and ordered to be filed.

#### JUDGES FOR THE TRADE EXHIBIT.

Announcement of the appointment by the Executive Committee of the following named gentlemen to serve as judges in the trade exhibit now in progress in the lower hall, was made by Secretary STEWART ; the first of the names, in each instance, being that of the chairman, viz. :

PLANTS.—WM. MARTIN, FRED. GOLDRING, W. S. CLARK.

CUT BLOOMS.—C. B. WHITNALL, JOS. BENNETT, LAWRENCE COTTER.

BOILERS AND HEATING APPARATUS.—J. T. ANTHONY, JOHN WELSH YOUNG, WM. SCOTT.

GREENHOUSE APPLIANCES AND FLOWER POTS.—ED. LONSDALE, W. H. ELLIOTT, A. M. HERR.

BULBS AND SEEDS.—EUGENE DAILLEDOUZE, J. R. FREEMAN, SAMUEL J. COLEMAN.

FLORISTS' SUPPLIES.—W. J. SMYTHE, H. L. SUNDERBRUCH, JOHN WESTCOTT.

MISCELLANEOUS.—P. O'MARA, H. CHAPPELL, E. KOFFMAN.

TREASURER HUNT'S REPORT.

Mr. MYRON A. HUNT, of Terre Haute, Ind., Treasurer of the Society, being called upon, made the following report :—

*Mr. President, Ladies and Gentlemen,*—The financial year of the Society closes on December 31st, at which time a report was rendered by me to the Executive Committee. The report presented today covers a period for six months subsequent to that date or until July 1st.

The receipts for the year from July 1, 1891, to July 1, 1892, were as follows :—

Balance on hand . . . . .	\$1,028 55	
Membership fees . . . . .	2,360 00	
Interest account . . . . .	41 67	
Total . . . . .	—————	\$3,430 22

EXPENDITURES.

Joseph Gilbert, stenographer . . . . .	\$130 00	
Wm. J. Stewart, sundries . . . . .	133 27	
D. Gunn & Co., printing . . . . .	84 00	
A. A. Blair & Co., . . . . .	6 50	
J. C. Vaughan (to cover expenses of stenographer at Toronto in taking notes for World's Fair Committee) . . . . .	4 80	
B. F. Knapp, of Central Traffic Asso., (to pay travelling expenses to Toronto of agent of C. T. A.) . . . . .	17 00	
J. N. May, badges for 1891 . . . . .	42 00	
Secretary's Stewart's salary to January 1st . . . . .	375 00	
Mr. Wm. Falconer (Nomenclature Committee), American Florist Co., for electrotype . . . . .	5 00	
A. A. Blair & Co., printing report . . . . .	358 75	
Wm. J. Stewart, sundries . . . . .	79 33	
Executive Committee meeting in January . . . . .	256 41	
L. J. Merrifield, copying . . . . .	20 90	
D. Gunn & Co., miscellaneous printing . . . . .	12 25	
John N. May, badges for 1892 . . . . .	42 00	
Wm. J. Stewart, salary to July 1st . . . . .	375 00	
Total . . . . .	—————	\$1,997 48
Balance on hand July 1, 1892 . . . . .		\$1,432 74

I might state that owing to the miscarriage of some of the correspondence between the Secretary and myself, an item of some two hundred dollars, which should appear in this report as a credit to the Society, will necessarily have to be carried over until another meeting.

Treasurer HUNT'S report was received with applause, and (after a statement by President DEAN, that in company with Mr. ANTHONY, he

had gone over the report and found it correct as read) a motion was made by Mr. J. M. JORDAN that the report be accepted and filed.

Adopted without objection.

#### THE LATE FRANCIS T. MC'FADDEN.

Mr. JOHN N. MAY, of Summit, N. J., (who had just received intelligence of the death of a well known member of the Society), was awarded the floor. He said :

It becomes my sad duty to announce to the Society that, in the all-wise dispensation of Providence, one of our most highly esteemed members, FRANCIS T. Mc'FADDEN, of Rosebank, Cincinnati, has suddenly been removed from our midst. Those among us who knew him intimately, and they are not a few, will mourn deeply the loss of a kind and true friend ; the florists of this country and the interests of horticulture throughout the civilized world have by his death lost a bright and shining light. He loved children and flowers ; both were objects of his sincerest affection.

I hold in my hand a Cincinnati paper of yesterday, containing an announcement of the death, but I will not read it. I have risen more particularly for the purpose of saying that the family of the deceased will undoubtedly feel most keenly their affliction, some members of it being now absent in Europe. I would suggest, therefore, if it meets with the concurrence of the Society, that a letter of condolence be forwarded to the family in this, the sad hour of their great grief.

Mr. E. G. HILL, of Richmond, Ind., moved that the announcement made by Mr. MAY be entered upon the minutes of the Society, and that a committee be appointed to prepare a letter of condolence to the family, as suggested.

It was so ordered.

#### DISCUSSION OF THE PRESIDENT'S ADDRESS.

President DEAN, having received no response to his call for reports from standing and special committees, announced as the next item of business a discussion of the President's Address. He then temporarily resigned the chair to Vice-President SMITH.

Mr. J. M. JORDAN, of St. Louis, opened the discussion. He said : I have been waiting to see whether some of the brighter lights would favor us by showing the way, but having taken a few notes while the President was reading his address I wish to say a word as to several points which I deem worthy of being emphasized. The first is in regard to the importance of obtaining a national charter for the Society. As stated by your President, this subject has been brought to your attention on previous occasions. I regard it as of vital importance that an earnest effort should

be made as early as possible, in order that the charter may be obtained from the present Congress, at its session next winter. I would urge upon those members of the Society who reside in the city of Washington and can communicate in person with members of the legislative branch of the Government, to improve their opportunities for aiding us in this matter. If the Assistant Secretary of Agriculture, who has so kindly favored us this morning with an address, can be interested in the movement, and if the co-operation of the Department of Agriculture can thus be gained, I think that we may confidently anticipate that the charter will be secured.

Another topic suggested by the President is that of awards for new plants. I suggest that if, in addition to awards for new plants, certificates of demerit were always awarded to plants proving worthless, it would be a good thing for this Society. I know that, from time to time, it has been heralded over the country that a new rose of magnificent proportions was about to make its appearance. I think that almost yearly some one has had a new rose. Not long since thousands of specimens of a new rose were sent broadcast throughout the country; and I may say that, although I have travelled a few thousand miles recently, I have yet to find one grower who recommends that rose today, although there were thousands clamoring for it not long ago. I allude to the Waban. I maintain that before being put on the market with the sanction of prominent members of this Society, a rose should be tried and the fact should be ascertained as to whether it has sufficient merit to justify a reasonable expectation that it will prove of real value to the florists who will have to buy and cultivate it. I think I may speak for the Western part of the country when I say that we are sick and tired of these new roses or new plants that come out with some flaming name and are put on the market with a great price, when really the price is about all that there is of them that is great. [Applause.]

With respect to "auxiliary societies," I wish to say right here that the young tree, known as "The Society of American Florists," which made its first appearance at Chicago eight years ago, and which was transplanted, watered and nourished at the Cincinnati meeting and at the subsequent annual meetings, has grown to wonderful proportions. It has taken deep root. You may talk about too many auxiliary societies, of a limb here and a limb there towering above the parent tree. I say, gentlemen, you want to keep them around you as members of one great family, no matter how numerous they may be. You need to encourage such auxiliary societies; you ought not to cut them adrift or to ignore them. Do you think the tree can stand without a limb? You need to preserve every fibre of it intact, and to make the whole one grand monument to floriculture and horticulture. [Applause.]

As your President has well said, the glass employed in our various avocations amounts to about thirty-eight million feet; and I am able to say to

you that one of our auxiliary societies, the Hail Association, (which was the first of those societies to be created) is now carrying insurance upon five million feet of glass ; and we are hopeful that before another year has elapsed, a majority of all the glass in the country that is exposed to hail, will have been insured in that Society. During the past year the applications for insurance have been pouring in by the thousands and thousands of feet.

In regard to the importance of a higher education for those who pursue the business of floriculture, (which has been mentioned by various Presidents almost from the beginning,) I think we will be able to show you, gentlemen, when you come out to see us in St. Louis next year, as you undoubtedly will, some of the fruits of a scientific school for the education of young men as florists. Thanking you for your attention, I trust that other gentlemen may now be induced to express their opinions in regard to the address of the President.

Mr. JOHN N. MAY, of Summit, N. J.: Mr. Chairman, as chairman of the committee which was charged with the duty of procuring a national charter, I am reminded by the remarks of Mr. Jordan that some report from me on that subject is due to the Society. I therefore say to you that our prospects of securing a national charter are very promising. The fact that it is not already in our possession is due to a mere accidental or anomalous condition of affairs in the House of Representatives at the session which recently closed. It happened that there were in that body a number of what our Washington friends call "quorum cranks." Our bill stood second on the files ; the only measure having priority of consideration over it being one to establish a uniform rate of weight in measures of grain. The consideration of that measure was defeated by "the quorum cranks," and, as a consequence, our bill could not be reached for consideration. That is the only reason why it did not get through at the last session of Congress. A short time ago, when I was in the city of Washington, I saw the Chairman of the Committee on Agriculture, who has the matter in charge. He was exceedingly kind and courteous in his treatment of us, and I was assured by him that he would spare no effort to secure the passage of the measure as quickly as possible, upon the re-assembling of Congress. [Applause.]

Before taking my seat, I wish to say a word in reply to a remark made by Mr. Jordan in his allusion to the introduction of new plants. I think it due to the general public and to every member of this organization that I should make the statement which I now make in regard to the rose "Waban." I assert that that rose had every promise of proving a magnificent variety. I assure you, upon my standing as a member of this Society, that it was never my intention, either as a member of the Society of American Florists or as a man in trade, to lend my name to any counterfeit, but that in that transaction I was actuated by the belief

that it was a bona fide good variety. Those who saw it growing in the neighborhood of Boston, as I did, before it was sent out, cannot refrain from endorsing all that I now state. The people of Boston today endorse it as a good thing. The trouble in connection with it may be ascribed to one of those freaks which we cannot control and do not understand. In doing what I did I was acting entirely in good faith, like hundreds of others throughout the country; and if we were disappointed in our expectations the fault was not that of the original introducers of that rose. Conservative people of Boston believed they had a good thing and, entertaining the same belief as we did, we all joined hands with them to help to introduce the rose. The disappointment was to us individually as mortifying and humiliating as it was to any others who were deceived.

Mr. H. B. BEATTY, of Oil City, Pa.: Mr. Chairman, I desire to heartily endorse what our President has said in regard to auxiliary societies and what has been said on that subject by Mr. Jordan. I also think that our President has struck the key-note in his suggestion that a yearly review of the work of those societies, giving the latest developments in each, is worthy of being incorporated in the minutes of the Society of American Florists. I think that if that suggestion is carried out, every ground for apprehension which some of us may have entertained, that these auxiliary organizations would have a tendency to weaken the parent Society will be removed, and that such societies will prove to be simply the natural and necessary branches of the parent tree.

Mr. ROBERT CRAIG, of Philadelphia: The expressions of opinion upon the President's Address, to which we have listened, have given me much gratification. The address is like its author in that it is practical and exhibits good common sense. [Applause.] The attitude assumed by the President in regard to auxiliary societies connected with the main Society, is peculiarly gratifying to me. It is well known that in all departments of human knowledge, the specialists in those departments attain a higher degree of knowledge and a more acute perception of details than is attained by those whose observations cover a larger area. This is true in law, medicine, and all the arts and sciences, and is equally true in our own domain of floriculture. The man who makes a specialty of carnations, and follows that up day after day with his whole mind upon it, will certainly learn more in regard to them than will others in the business whose attention is given to a larger field. The suggestion that we should look to these organizations of experts at our annual meetings for the latest developments in the line of each is a most excellent one. I hope that every branch Society will take note of the suggestion, and that at our next annual meeting we shall have a paper from the Carnation Society, a paper from the Chrysanthemum Society, and if the Rose Society is organized at this Washington Convention, as some

enthusiasts hope it will be, a paper from that Society,— each prepared as the President has suggested, by a member of the Society selected for the purpose, which shall give to the whole body of our members the most recent details of progress in these specialties.

For the President's Address, as a whole, I have only words of endorsement. I do not think that any one can find fault with any part of it. But, Mr. Chairman, if you will pardon me a moment, I will feel easier if I do object to the sentiment expressed in an address which preceded that of the President. I allude to that of the Assistant Secretary of Agriculture. We feel very grateful to that gentleman always; he is an earnest, thoughtful man; but I want to ask him if he is not confining floriculture within too narrow limits when he asks us to limit ourselves to the plants indigenous to our own latitude. That is a suggestion to which I cannot agree. Shall we send to the uttermost parts of the world, and there delve into the bowels of the earth for the rich jewels with which we adorn the persons of those we love? Shall we explore the inhospitable regions of distant climes in quest of products with which to increase our supplies of food and raiment? Shall we send to France and to California for our wines, and to more remote localities for luxuries with which to minister to our physical enjoyment, and yet refuse to improve our opportunities to cultivate the æsthetic tastes of our people? Shall we not say God-speed to Mr. Forsterman and his compeers when they penetrate the jungles of India, and bring to us the peerless orchid? Shall we not surround ourselves with those products of the tropics? And shall we not be commended for so doing?

I was much interested in the address of the representative of the Department of Agriculture, but I felt that it would be a relief to me to express myself as I have. [Long continued applause.]

Mr. J. M. JORDAN, of St. Louis: Mr. Chairman, as the Assistant Secretary of Agriculture is not present to reply to the gentleman from Philadelphia, (Mr. Craig), I venture to suggest that that gentleman's criticism may be somewhat overdrawn. I did not understand the Assistant Secretary to object to the cultivation of the foreign products, but rather that his idea was to encourage us in the cultivation of the plants indigenous to our soil, and by which we are surrounded. As I have said, when you come to St. Louis next summer, we will show you there in our Missouri Botanic Garden a collection of plants indigenous to the State — what you call "wild weeds" — which, by careful cultivation have assumed an appearance entirely different from that which they presented in their wild growth. I think the idea of the Secretary was that we ought not, by giving undue preference to the foreign varieties, to ignore our own products.

Mr. R. T. LOMBARD, of Wayland, Mass.: If I understood the remark of the Assistant Secretary, it was that he wanted to see the



orchid of Africa and South America put in a cage, and kept there like a lion. Now, I do not want that. [Applause.]

The discussion here closed, and after some announcements concerning details of the entertainments provided by the National Gardeners' Club, an adjournment was ordered until evening.

During the afternoon most of the delegates, with the ladies who accompanied them, attended the reception tendered to the Society of American Florists, by Mr. JOHN R. MCLEAN, at his garden, Nineteenth Street and Boundary. A feature of the enjoyable occasion was the elaborate musicale by the Marine Band. Three tents had been erected on the lawn in which refreshments were served. After several hours of recreation and informal chat, the visitors returned to the city in time for the evening session.

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#### FIRST DAY — EVENING.

The Convention re-assembled at 8 o'clock, P. M.; President DEAN in the Chair.

##### FUNGOUS AND OTHER ROSE TROUBLES.

The first business of the evening was the reading of an essay on "Fungous and Other Rose Troubles," prepared by Prof. BYRON D. HALSTED, of the Agricultural College, New Brunswick, N. J.

The essay, in the absence of its author, was read by Secretary STEWART, and elicited general applause. It is as follows :

The writer considers it no empty honor to be invited by the Society of American Florists to prepare a paper for this meeting upon the topic assigned. Since the notification from your Secretary, the subject has been under more special consideration than previously, and the rose, both in sickness and health, has been a theme of frequent thought. Take it in doors and out, wild and cultivated, the rose, in all its species and varieties, has a full share of the fungous diseases. No less than one hundred and sixty-five (165) kinds upon the genus *Rosa* are recorded in the books. Many of these are not considered injurious in particular and will be passed without further notice. It is the purpose of this paper to treat of those species that are most troublesome to the practical rose growers, for they have been making serious complaints for some months, and special attention has been paid to these subjects.

##### *The Black Spot. (Actinonema Rosae, Fr.)*

The black spot is a very widespread and conspicuous disease of the rose, first described in 1826, now known in many countries, and often much dreaded. The foliage when attacked soon develops the charac-

teristic black spots, and the leaves becoming elsewhere pale, shortly fall to the ground. As a result, rose houses badly infested with the black spot show but few leaves and fewer blooms. The microscopic structure of this fungus has been fully considered with plates in the first annual report made by Professor Scribner, as chief of the section of vegetable pathology of the United States Department of Agriculture, for the year 1887. It only needs to be said here that experiments with the fungus have been carried on sufficiently by the New Jersey station to warrant the assertion that it can be controlled by the proper use of fungicides.

This trouble may be held in check by the carbonate of copper compound, using three ounces of carbonate of copper, one quart of ammonia and fifty gallons of water. The spraying should be done once a week, using a hose and a nozzle that gives a fine spray. The point should be to wet every part of the plant and yet not drench it. If many leaves have fallen from the plants they should be gathered up and burned. As with many other diseases some varieties are more liable to black spots than others. When possible, that is when all other things remain the same, it is of course wise to grow those least susceptible to the disease. It may be said in passing, that within the past week the black spot has been observed by the writer upon a species of wild rose, (*Rosa humilis*) when it was causing the leaves to become spotted and yellow. It is not surprising, for the wild plant was growing but a short distance from a neglected estate where garden roses were badly spotted.

*Powdery Mildew of Rose. (Sphaerotheca pannosa, Wallr.)*

One of the oldest troubles of the rose grower is the mildew. This develops very suddenly on the foliage in the greenhouse or outside of it, giving the leaves a powdery appearance, and causing them to become more or less misshapen. In a mild form the foliage may be only mealy, but frequently the surfaces become uneven and the whole leaf twisted. If left unheeded the enemy will ruin the plants attacked, and knowing this, a remedy has been found and long applied in the shape of sulphur in one form or another. Professor Maynard, of the Massachusetts Experiment Station, finds a small kerosene stove the most convenient for this purpose, and the sulphur, by means of it is boiled in a kettle for two or three hours twice a week; the house being closed during the operation. The only precaution is to use no more heat than is sufficient to boil the sulphur; for should it catch fire it might damage the plants. In the *American Florist* for July 7, of the present year, Mr. JOHN N. MAX writes, that the best way to get rid of the mildew is to close the house about eight o'clock in the morning, run the temperature up to seventy-five; then with the bellows fill the house full of sulphur, let the house remain closed until it reaches eighty-five to ninety, then admit air gradually. A constant circulation of air is likewise recommended for roses at all times. Potassium sulphide, one ounce to two gallons of water, sprayed upon the plants has proved an effective remedy.

Gardeners from long experience have come to the belief that rose mildew is induced by a weak condition of the plant, resulting from partial starvation, irregular or excessive watering and undue exposure to draughts of cold air. The best successes in rose growing, as in all other things, attends those who give constant intelligent care to the many details.

*Downy Mildew of Rose. (Peronospora sparsa, Berk.)*

Some rose growers are troubled with a second form of mildew which differs in many ways from the one just mentioned. It is less easy to detect, and being more deeply seated may do greater damage before detected than the powdery mildew. It is likewise less easy to eradicate, because it thrives within the substance, while the *Sphaerotheca* feeds superficially. *Peronospora sparsa* is a close relative of many of the most serious mildews, as those of the grape, onion, lettuce, spinach and the rot of the Irish potato. The treatment for this is the same as for the anthracnose to be mentioned later.

*Rose Rust. (Phragmidium mucronatum, Wint.)*

The genuine rust of the rose similar to the rust of wheat, oats and other grasses, is not common in our section of the country upon in-door roses. It is not unlikely that it may become a pest here as it now is in California and other States in the Union. Those who are familiar with the rust of the blackberry need no further words of general description of this fungus. The writer has seen the pest so violent in its attacks upon roses in Santa Barbara, Cal., as to ruin them, causing the canes even to become blistered, the whole being covered with a mass of orange colored spores. There is very little to be said in the way of treatment, save that of cutting and burning all affected plants.

*A Rose Anthracnose. (Glœosporium Rosarum, Hals.)*

Many sick rose plants that have been sent to me for inspection have exhibited only one species of fungous disease, namely, a *Glœosporium*. When a rose is badly infested with this fungus the leaves are small and pale and the canes die at the tips. Sometimes the stems may be dead for a foot or more from the extremity. Not infrequently one branch will be dead clear to the base, and sometimes two or more are thus destroyed. The dead twigs show pimples quite evenly distributed over the surface, and for some a minute, often curved, horn of a reddish color protrudes. When such stems are placed in a moist chamber the whole decaying surface becomes closely covered with numerous almost brick red masses of spores. And the disease spreads rapidly through the adjoining parts of the twigs that seemed healthy when placed in the moist chamber. The rapidity with which the fungus would spread was a subject of surprise. In four days from the time, spores were introduced into sterilized sections of rose twigs in test tubes, the whole of the

culture would be covered with the spore masses. This anthracnose appears to be new in that it has not been before studied microscopically.

### *Eel Worms.*

One of the leading reasons for the many complaints made by rose growers during the past year, is a microscopic worm that works principally at and in the roots.

These worms are in outline like that of an ordinary eel, and under the microscope are seen in almost constant motion. They cause an enlargement of certain parts of the roots, and by means of these, galls or knots are easily detected with the naked eye when a plant is removed from the soil and carefully washed of the adhering earth.

The writer furnished an article upon this subject to the special spring meeting of the *American Florist*, accompanied by photo-engraving of a badly infested root system of a rose plant. Some of the following notes are taken from that paper.

The term nematodes is also given to the eel worms, but whatever the name they go by, there is no doubt about their injuriousness. The point that most interests rose growers is how to get rid of the pest. In order to do this it will be of much assistance to know where the worms come from ; how they propagate and get into the roots of the infested plants. These eel worms are much more abundant than generally supposed, and it is only when they get numerous that their mischief becomes apparent. The nematodes are, as a rule, much more abundant in warm climates than elsewhere, and the unusual abundance of these pests in northern gardens for the past two years is likely due to the lack of the freezing of the soil.

The greenhouse furnishes the proper conditions for the propagation of the eel worms provided they are there to begin with. This naturally raises the question of how they first get into the bed. This may be in one or more of several ways. They may already be in the roots of the plants, but in small numbers when the plants are placed in the house. To guard against this the roots should be examined as closely as possible for the galls when the beds are set. All galled roses should be excluded. The nematodes may come in with the earth. As before stated, the worms infest a large number of kinds of plants, and it is an easy matter for them to come with the soil. Soil that has not been used for growing plants in the garden is not necessarily free, but may, if taken from a pasture or meadow, contain many nematodes. Then again, they may be taken with the manure that is used.

Just what may prove to be the best precautions remains for the practical rose grower to determine. Cold in excess will probably destroy the worms, and likewise a high temperature is fatal to them. Both of these conditions may be impracticable to apply to the soil, the one being impossible in most cases, and the other too expensive. Rose growers

might make the experiment of heating the soil of a small portion of the bed before setting the plants, and satisfy themselves if such a treatment will pay. If manure is the chief vehicle of the worms it may be possible to grow roses without so much of this constituent of the rose soil. It may be that roses can be grown with a burned soil to which all the necessary elements of plant food have been added in the form of commercial fertilizers. It may be, however, that the pampered rose will not perform her part unless fed in the ordinary way to which its ancestry has been accustomed.

The fact is, that the worms are doing much damage. When they are once in a plant there is no known way of driving them out. New conditions may induce the formation of new roots, and a sickened plant may revive, but recovery is not usually to be expected.

It is possible that some substance may be put upon the soil that while not injuring the roses may kill the worms not already in the plants. Lime has been thus used, and with favorable results. Sprinkle the lime upon the surface of the bed, or better, mix it with the soil, and each watering will tend to bring it in contact with the tender bodies of the worms. It is not unlikely that some of the fertilizer compounds may be found, that at the same time they furnish food for the plants, will deal a death blow to the nematodes. Kainit may thus prove an efficient remedy, and it only remains for some enterprising rosarian to take the matter in hand and demonstrate the truth or falsehood lurking in the suggestion. It is easy to obtain and apply, and the amount to use must be determined by trial.

All that has been said regarding the habits of the rose eel worms applies equally well to those of the violet, coleus, lantana, bouvardia, geranium, and a long list of other plants that are frequent or occasional victims to the same trouble. The treatment will vary with the nature of the plant whether annual or perennial, woody or succulent, large or small.

The PRESIDENT: It is a matter of regret that Professor Halsted is not present tonight to answer any questions that may be proposed in the discussion of this essay, on which it is evident he has spent much time and labor. Still the Chair thinks there are gentlemen in the hall who are able to point out to us many of the good points in the paper. Discussion of it is now invited.

Mr. JOHN N. MAY, of Summit, N. J., responded: I do not know that I am able to throw much light upon this subject apart from that which Professor Halsted has given to you. I will say that, in conjunction with Professor Halsted, I have been working at this trouble for the last three years; and on the last occasion on which I saw him, which was only a short time ago, he frankly confessed to me that he was as much in the dark as to an absolute remedy which would destroy nema-

todes as he was when he began. I will say that I have been trying the effect of lime in its crude form, in its air slacked form, and in diluted form ; and up to the present time I have been unable to find that it has any effect whatever. In fact, the case is very similar to that of the rose bug—*Aramyus Fullerii*. A few years ago, I was told by a resident of this city, that lime would destroy the larva of *Aramyus Fullerii*. At that time I was very much troubled with it. I slacked a bushel of lime in fifty gallons of water, and let it stand for twenty-four hours. I then put a handful of the larva of the rose bug, so-called, into a quart of the lime water and let it stand for six hours. When I took them out, after a few minutes they began to move, and appeared to be just as lively as ever. A neighbor of mine went further than I did. He put them into the lime water, and then placed them on the roof of his shed at night, allowing them to stand there and to become a solid frozen mass. The next morning he took them into his greenhouse, thawed them out, and found after a little while that they were still alive and ready to begin to move around.

This eel worm in question is just as tenacious of life apparently as the rose bug which has been described. Although I have not subjected it to any such test, still we have used large quantities of lime, as already described, without appearing to realize any advantage whatever from its use. In fact, in a recent trial we watered quite a number of plants with strong lime water, and today they are the worst affected plants of any that we have on the place.

I do not know that I can say anything further except to tell you to go on and try your own remedies. Those of you who have been clear of this insect up to date have much to be thankful for, and those who are afflicted with it have one of the worst enemies with which they have ever been troubled. It is on the increase all over the country ; and if it continues to increase it will shorten the crop of flowers to a very large extent. Those who are fortunate enough to escape it will reap the benefit of the high prices which they will get for their products ; and the poor fellow who is badly afflicted with it may possibly find himself eventually in the poorhouse. You may say that I am stating the thing rather strongly. I will say to you that I know of one gentleman now present in this hall—in fact, I know of more than one—who had the eel worm so badly last year that his rose house was a total failure.

There is one thing that Professor Halsted has suggested which, it appears to me, is the only feasible remedy ; and that is to go to work and cook your sod. A short time ago I wrote an article which was published in the *American Florist*, to the effect that I would like some of our inventive geniuses to get up a machine suitable for this cooking of the soil ; and I had hoped that something of the kind would have been presented at the present meeting of the Society of American Florists. Failing to see anything of that sort offered, I am preparing to make

such a machine myself. Should I be successful in a trial of it, I will gladly give this Society and its members the benefit of my experience when we meet next year. I may add that I have used everything in the way of chemicals which has been recommended to me, and which had been found destructive to insect life generally, but so far I have failed to realize any benefit from the use of such remedies.

Secretary STEWART: I am requested to ask Mr. MAY whether he has ever found this eel worm in the roses budded on the Manetti stock.

Mr. MAY: Unfortunately, the rose that stands on a false bottom is no more exempt than one that stands on its own bottom. Some years ago I was told by a European grower, who grows in the neighborhood of five hundred thousand roses in the open air, that if budded stock was used we would not be troubled with black spot or any of the other diseases that afflict our roses. I replied, "All right, sir; send me ten thousand of your stock budded, the best you have — say, five thousand teas and five thousand hybrid perpetuals." He did so. In the next year I had the worst case of black spot on those hybrid perpetuals that I ever had before that or have had since. In regard to eel worms on this stock, I may say that I have been trying experiments this year. Last Saturday night, after everybody had finished their day's work and retired, I went into the nursery, lifted one of these plants budded on the Manetti, and found the root galls just as bad upon it as upon any plants on their own roots. I found that the nodules or root galls on the roots of this plant were as large as good sized peas.

Mr. J. G. ESLER, of Saddle River, N. J.: I would like to ask Mr. MAY whether he used lime as a preventive, or whether it was after the worm had become encysted in the root.

Mr. MAY: I cannot say that I have given the matter sufficient attention to enable me to say clearly whether it will prevent the development of the nematodes. So far as we have tried the lime it has not acted as a preventive. Professor Halsted thinks that the prevalence of the eel worm at the present time in our Northern climate, is largely due to the fact that we have had very wet winters for the last three or four seasons with very little frost. He draws the inference therefrom that the eel worms increase more readily in a moist soil. To arrive at some conclusion on this point, I planted a bench for trial early this season, and kept it as dry as was consistent with the health of the plants; but today they are the worst affected plants of any that we have on the place, a fact which to my mind demonstrates to some extent that moisture itself is not in any way responsible for their increase.

Mr. C. W. TURNLEY, of Camden, N. J., inquired whether the use of crude oil had been found to be injurious or favorable to the roots of the roses.

Mr. MAY : My own experience is that the crude oil has no effect whatever. The gentleman who sits next to me, (Mr. Pierson), probably can answer as to that more clearly than I can.

Mr. FRANK R. PIERSON, of Tarrytown, N. Y. : My answer to the inquiry as to whether the crude oil used on the benches injures the roots in any way, is this. We have used crude oil in our greenhouses for three years, and have seen no bad effects from its use. We use yellow pine in the construction of the benches. We thoroughly saturate with three or four coats, giving as much as the wood will take up. Now, after three years of trial, we find that the lumber has not decayed in the least, but is as sound as it was the day the benches were erected.

In reference to the alleged deleterious effects of crude oil, I have to say that we have not observed the slightest evidence in that direction, and have no hesitation whatever in recommending its use both as a preservative of the wood, and from our own knowledge that it cannot injure anything. When we first used it, it was with considerable hesitation, but after a thorough trial, we have adopted it in all our houses.

Mr. EUGENE H. MICHEL, of St. Louis, Mo., inquired why the nematodes, if they lived only on the roots of plants, could not be starved out by piling the soil for three or four years, thereby preventing anything from growing in it, and thus depriving them of food.

Mr. M. J. LYNCH, of Poughkeepsie, N. Y. : I desire to state, for the benefit of many small growers, a preventive against eel worms which I have found to be most effective. Take one bushel of air slacked lime and one bushel of common soot from chimneys, and mix with two tons of soil at the last turning over, before it is put into the benches. This has proven, in my experience, an effectual remedy.

(The discussion here ended.)

#### WHY INSECTS INFEST PLANTS.

An essay entitled, "Why Insects Infest Plants," was here read by Mr. JOHN SAUL, of Washington, D. C., and was received with cordial approbation.

The paper is as follows : —

The observation and experience of a long life devoted to horticulture, leads me to the conclusion that insects never attack plants or trees, unless the same have had some check or shock in some way that have impaired or injured their vital power, either from unsuitable or undrained soil, too much or too little water, want of pure air, sunshine, or one or more of the many causes that impair or check vegetable growth ; any one of those happening, insects immediately appear. I believe it is possible to grow plants and crops with such health and vigor that those pests will not put in an appearance.



I am aware that some scientists are of a different opinion. When sickness and disease are abroad, it is the duty of the physician to combat it, as his greater duty is to find out its origin, and prevent the organisms, bacteria, or what may cause disease taking form and spreading.

In like manner it is well to destroy those insects that are injuring our crops, plants, trees, etc. ; but of still greater importance to discover the cause that called them into existence.

Man, when in robust, vigorous health, will not take fevers and other diseases ; he must receive a check, something must be wanting before the disease will catch, as in plants. We are told sanitary measures are necessary to avoid disease. These must be cleanliness, pure air and water, and whatever may be necessary or conducive to health ; and this is what is precisely requisite in plant life. Though this paper is more particularly intended to apply to plants, I have to step aside occasionally to illustrate what I have to say.

At the meeting of the American Pomological Society in September, 1891, at Washington, Mr. Latham, of Norfolk, Va., read a paper on the cause of " Pear Blight," in which he took the ground that it was caused by a sudden fall of temperature when the trees are in vigorous growth, say — middle or end of June — a fall of thirty degrees will produce it. Bacteria is not the cause, but the effect. It follows they are the scavengers to clean up decaying vegetation. This is what horticulturists know in many other cases. I walk along one of our streets, and observe the trees on its sidewalks are not healthy. If elms, the foliage is gone by mid-summer, and if silver maples they are covered with scale, and so of many other trees. Those insects were not the cause of disease, the trees first received a check ; either want of proper soil, or insufficient moisture, atmosphere, etc. ; but as soon as that check took place, insects appeared. The same species of trees, or trees growing in the humid, rich valley of our beautiful stream, " Rock Creek," would be pictures of health and vigor. The check was necessary to bring forth insects.

Other cases — take for instance roses. If I have a house of roses in perfect health, without a speck of mildew during fall, winter or spring, the atmosphere inside is about sixty degrees, moist and genial. My roses look happy ; outside it is cold and raw. Suppose I open the side ventilators for half an hour, a cold draft of air passes over the plants. What will be the result ? The plants have been chilled, taken a violent cold, and in a short time will be covered with mildew. Mildew follows from the check to plants a violent cold. Any person may try a similar experiment on himself.

Again I have a house of pelargoniums ; it is spring, say — March or April — they are growing freely ; a cold, harsh air prevails outdoors, some side air is given ; as a result my pelargoniums are chilled, take

cold, and by the following day are covered with green fly. Had they been grown nicely on, unchilled, there would be no fly.

Take a lot of gardenias, neriums, tabernæmontanas, etc. ; it is summer time, we have them outdoors growing freely, clean, free from scale or other insects. When placed in the greenhouse in the autumn into too great a degree of heat, and want of air, they are soon covered with scale, mealy bugs, and other insects. Those same plants covered with insects, planted outdoors in May, the insects will disappear, and plants become perfectly clean when they get a suitable atmosphere.

Pineapples in some countries are forced under glass when the temperature is not suitable. Plants become covered with scale, yet I have known good growers take these scale covered plants, place them among clean, healthy plants in a suitable atmosphere, and they speedily, as they say, grow out of it. If I take aucubas which are nearly or quite hardy, place them in a close, warm, unventilated greenhouse, they soon become covered with scale, but the same plants removed outdoors in spring, the insects soon disappear.

If an orchid grower has a look amongst his orchids, and finds an odontoglossum affected by scale, he sees at once the plant has too much heat, and not sufficient ventilation ; but place it in a more even temperature with better ventilation, and the plant soon improves. Such plants come from the mountains of Central and South America, and need a temperate, moist climate. He sees other species, such as saccolabiums, phalenopsis, etc., which are also affected, but from a different cause ; they are from the hot jungles of India, and need heat and moisture.

Under glass in forcing houses, plants are infested with insects invariably caused by too much or too little heat, want of moisture, bad ventilation, etc.

The experienced plant grower can avoid all this. Insects follow, but are not the cause. This holds good in all the insects that have come under my observation, under glass, as well as outdoors.

It is said bacteria can be propagated ; of course it can, so can all the diseases of the animal as well as of the vegetable kingdom. Plants are never attacked by insects, whether in the greenhouse or outdoors, if in vigorous health, growing in a suitable well drained soil, and a climate or artificial atmosphere in perfect harmony with what the particular species requires. If oranges and other fruits are affected with any particular species of insect in California or any other country, rest assured there is something lacking in that climate (however beautiful it otherwise may be) to that particular species of plant ; when the climate is perfectly suited, there are no insects. In place of spraying and destroying insects after the life of our trees and plants has been sapped away, let us take a lesson from stock breeders ; see how careful they are of pedigree — it must have untarnished blood — must be free from disease ; how careful they are that no check or injury shall in any way impair growth or

vigor ; they know too well that an injured or stunted animal cannot be perfect or beautiful when matured. In precisely the same way must the horticulturist proceed ; he must start right with his plants, and follow the same unerring laws, when he will encounter but few insects.

One of England's greatest naturalists, Charles Waterton, gave it as his opinion, that no tree in perfect health was affected by insects. When insects appeared, why then, disease and death.

I am no scientist, but a practical horticulturist, who has observed much in a long life. I have as great a respect for science as any man ; I am fully alive to what it is doing, not in our particular department, but in its broadest range ; still, I think there are many things which come under the eye of the cultivator which are unobserved by the scientist in his study.

I am full in years, but can well recollect in my younger days, before the great Atlantic was traversed by steamers, (I think about 1837 or 1838,) the practicability of this was much talked and written about.

To test this fully, a company of merchants in Bristol, England, commenced building a vessel for the purpose ; whilst this was being built, one of England's greatest scientists, Dr. Lardner, delivered a lecture in the same city to show the total impracticability of navigating the Atlantic by steam ; this he proved to his own satisfaction. Notwithstanding, the hard-headed men of Bristol completed their steamer. The "Great Western" was launched, and the Atlantic was opened to steam.

Discussion of the essay was invited.

Mr. BENJAMIN HAMMOND, of Fishkill on Hudson, N. Y., responded. He said that when a gentleman like the essayist, full of years, and eminently successful in his avocation, proffered suggestions based upon long years of experience, it behooved the younger generation to give heed to those suggestions, as they would probably be found to contain ideas which would prove to be stepping stones toward the throne of power and wealth. Referring to the great interests represented by the Convention, he said that allusion had already been made to the fact that there are now in the United States five thousand commercial greenhouses, representing an investment of some \$40,000,000, and that the value of floral establishments ranged from a few hundred dollars up to perhaps a quarter of a million of dollars each. The industry gave employment to about twenty thousand men, women and boys, all of whom were dependent upon floriculture for their livelihood. The output of the product of the greenhouses now reached a round sum of \$27,000,000. He thought that the representatives of a business of such magnitude were vitally interested in acquiring every item of information in regard to any hindrance to the success of their output. Although for a dozen years he had been intent upon ascertaining the causes which produce insects, his experience had not been such as to enable him to reach the

conclusion at which the essayist had arrived, although he did not care about being classed with Dr. Lardner. He continued :

In the animal kingdom insects outnumber all the rest of creation. It is the all powerful instinct of an animal to eat, and if it has not something to eat it cannot live. Now what is the condition in which insects live, grow and thrive? It is the same by which the cattle of the plains are fattened, as they graze upon the magnificent fields that furnish them pasturage. Nowhere are the conditions for insect propagation so favorable as in the hothouse. There they have heat, humidity and food — a veritable paradise for the insect — and there the eggs are deposited which, in the course of time, develop into embryo life. The greenhouse, which you have stocked with so much care, becomes abundant feeding ground for the insect. Is it a fact that it is only the plants that are wilting or half decayed upon which the larva feeds? So far as I have been able to observe, if the feeding ground is not good, the larvæ will move on just as rapidly as their powers of locomotion will enable them to move, to other plants which furnish good feeding. It has been so in the past, and it probably ever will be so, that the insect will choose for its lodgment that place in which it will get the very best livelihood. When we have discovered an evil and seek to rectify it, we must first discover the cause of the evil, and when we have found the cause we must persist in applying the remedy. In fighting insects you are obliged to keep on fighting just so long as you supply them with that on which they can feed. I have never yet seen an insect that preferred to feed upon a decayed leaf when it could find a healthy leaf, but it will move on until it finds the most succulent growth and then it will go for that.

While the florist labors to bring forth things of beauty, from the soil, the conditions which he creates to do it are those that are most favorable for the insidious enemies of his plants and flowers; and to protect himself against them in the best manner is, has been and will be always, a problem and a care. While greenhouses afford heat, humidity and food, it is hopeless to expect annihilation, but as has been done in the past so in the future, there must be kept up a steady, constant fight; and on that fight depends the success and bread and butter of the florist.

Mr. ROBERT CRAIG, of Philadelphia: Mr. President, my experience with insects encourages me to emphasize the thoughts so well expressed by the essayist, Mr. Saul. His excellent paper starts out with the idea that the attacks of the insect are not made upon the plants indiscriminately, but that as his experience has shown him, it is the plant which has been enfeebled from any cause which the insect is most likely to attack. He states that anything that interferes with the vigorous growth of the plant, whether it be because the temperature is too hot or

too cold, or from any other cause, tends to so impair its condition that it is more liable to attack than it otherwise would be. That is true. A plant subjected to a cold draught, as he has illustrated, will be rapidly covered. Just as soon as it is chilled and its vigor checked, it has the green fly or the mildew. Its power to withstand disease is largely a matter of condition. If the plant is thriving, the insects are not so likely to attack it. Take the apple geranium for instance. We can grow that plant vigorously and in good health ; but if you place it on a high shelf where the temperature is too high, and where it does not get enough water, what will be the result? In thirty-six hours it will be covered with red spider. Why? Because the plant has been checked and is enfeebled. We know that the insect germs are floating about, and are attracted to the weak point of the plant as the place at which their assault upon it can be made most effectively.

This principle is well recognized in medical science. Physicians say that prevention is better than cure, and that it is only by keeping our bodies in a healthy, sound condition that we are best enabled to ward off the encroachments of disease. I contend, therefore, notwithstanding the position assumed by Mr. Hammond, that a healthy leaf is less liable to the attacks of insects than one that is unhealthy. A fair illustration of my meaning is furnished in the case of the Croton. To be grown to the best advantage this plant needs a temperature of eighty-five to ninety degrees. Those who have tried to grow it in a temperature of sixty degrees have found the Crotons acquire only a stunted growth, and are continually attacked by scale. Placed in a good soil, with a temperature of eighty-five or ninety, the plant grows vigorously. A number of growers of the plant, now present, will corroborate my statement. As to any of our palms you will recognize that to grow them successfully, you must study the temperature question. Kentias, for instance, do not need a high temperature such as is required by *Areca lutescens*, but thrive best in sixty degrees. If placed in a higher temperature, scale will attack them more quickly than under other conditions. Take the *Areca sapida*. This palm comes from a cold section of the world, and to grow it successfully we need to keep it, in the winter time, in a temperature of forty-five to fifty. There the scale does not attack it. Our Vice-President, Mr. Smith, will bear me out in that. He has grown the plant hot and cold.

Of course there is room for insecticides. I do not want to be misunderstood. But the essayist has sought to give us the conditions of plant growth which will, to a large extent, free the plants from insects.

I had not the pleasure of hearing the remarks of Mr. May, this evening in regard to eel worms, but I may say that I happened to be at his place when a microscopic examination was made, and we saw the eel worms working in the roots and destroying the plants. While considering the matter, our attention was called to the Madame Pierre

Guillot in one portion of the house, where there was a considerable number of pipes, and the temperature was warmer than in other portions. We noticed that in that unsuitable temperature those roses were more badly diseased than others located elsewhere in the house ; in fact, in the far end of the house, where a more suitable temperature was maintained, the insects had not attacked the roses at all. Mr. Saul has given us food for thought ; for all these things are worthy of our consideration, and I feel personally very thankful to him for his paper. [Applause.]

Mr. WM. SCOTT, of Buffalo, N. Y., remarked that the preying of insects upon vegetable growth was in accordance with natural laws. He coincided in the view expressed by Mr. Hammond, and urged as an effective means for promoting the health of plants, cleanliness in the benches and surroundings, with frequent fumigation. He added that he knew of no better antidote for parasites than sulphur and tobacco.

Mr. J. D. CARMODY, of Evansville, Ind. : Mr. President, I think that if the two gentlemen, (Messrs. Craig and Hammond), will separate the two causes, and call one "disease of the plant," and the other "the preying of the insect upon the plant," they will come nearer the truth. I think disease is caused largely by a weakness of the plant. For instance, the opening of your ventilators when the temperature is too low, will break down the tissue of the plant, and open a place for fungus to start in and build itself up. I never saw a dog so healthy that he would not have fleas ; I never saw a boy so healthy that he would not catch the itch ; but I have seen healthy boys who did not take malaria when puny, sickly boys did take it. You can divide the cause, gentlemen, and call it "insects" on the one hand and "disease" on the other, and you will have the whole thing in a nutshell. Disease will attack weak plants ; insects will attack strong, healthy plants at certain times.

(Here the discussion ended.)

#### HOSPITALITIES.

Secretary STEWART here read a communication from the Columbia Athletic Club, tendering to the members of the Society the use of the rooms, bowling alley, etc., of the association.

On motion of Mr. J. D. CARMODY, a vote of thanks was tendered to the Columbia Athletic Association for their hospitality.

Adjourned.

The remainder of the evening was occupied by a musicale, arranged for the entertainment of the members of the Society and their ladies, by the National Gardeners' Club, of Washington. Refreshments were also served during the evening.

## SECOND DAY.—MORNING.

President DEAN announced as the first business of the day, the selection of a place of meeting in 1893.

## AT ST. LOUIS IN 1893.

Mr. ROBERT CRAIG, of Philadelphia: I have been asked by the delegation from St. Louis to introduce Professor Trelease, who has charge of the Shaw Garden in St. Louis. It gives me great pleasure to comply with the request because of the work done by that gentleman in which we are all interested. The Shaw Garden is a very interesting place to visit, and we are highly gratified to know that the means of providing facilities for educating young gardeners—a work so highly commended by our President—is in practical operation there. I understand that free scholarships for boys are offered there by way of teaching them how to take their coats off, and do the practical work of the farm and the greenhouse, while giving them the advantages acquired from garden magazines and personal instruction by the professor. That gentleman will now doubtless explain to you the attractions of St. Louis.

Prof. WM. TRELEASE, director of the Missouri Botanic Garden, here came forward on the platform, and on behalf of the St. Louis Florists' Club, extended to the Society a cordial invitation to hold the next convention in that city. He continued:—

I take much pleasure in extending this invitation, realizing, as I do, that the first consideration in your mind, as it is in mine, is the success of the next convention. We are all interested in seeing the convention made a thorough success, and I believe that we can give you in St. Louis a most thoroughly successful session. In the second place, I am personally very glad to invite you. We have in St. Louis many things we want to show you, and in one of these in particular, that to which Mr. Craig has alluded, I am much interested. I wish that I were privileged to say something about that because it is a special hobby of mine, but I will simply say now that we can show you in the Botanical Garden much that will be of interest to you.

Professor TRELEASE then referred to the selection of the convention city next year as necessarily having marked relation to the Columbian Exposition at Chicago, and to the reasons for which Chicago was considered ineligible. He detailed the advantages of St. Louis as a railroad centre, and readily accessible from all directions, while only eight or ten hours ride from Chicago. He suggested that, after having finished their business, the members could go to the Fair, and devote to it whatever time might be at their disposal. At St. Louis they would be afforded

facilities for travelling up and down the Mississippi, or reaching the Rocky Mountains, or enjoying any of the numerous side excursions for which there would be abundant facilities. In the event of the cholera making its appearance in this country next summer, the delegates would have at St. Louis wholesome drinking water, good drainage and proper sanitary arrangements. The temperature there ranged about evenly with that of Washington, and while overcoats would not be needed in August any more than they were now needed in the Capitol City, the weather there would not be warmer than in Washington. He continued : —

On thing that I wish to emphasize is, that in St. Louis we do not have extreme variations of temperature. It is the excessive heat of a day or two which kills people. Although we may have a temperature of from eighty to ninety degrees, or possibly two or three degrees above ninety, you will find that the atmosphere there is free from that extreme moisture which makes the atmosphere of many cities uncomfortable and deadly in periods of high temperature. We have a dry climate as compared with that of cities on the seaboard and the great lakes ; and anybody who knows what sultry, dog-day weather is will appreciate the reasonable probability that the air will be comparatively dry.

I think I can say for the Florists' Club of St. Louis, and for the citizens of that city, that if your convention is held in St. Louis, you will be well entertained there. I understand that it is the general sentiment of the Society that you meet for business, and not for the sake of having a protracted good time in eating and drinking ; and I do not pretend to say that we shall keep you at the table all the time. I do not understand that that is any inducement for you ; it certainly would repel many members if they were told that there was to be a round of entertainments which would dissipate their energies in the transaction of their business ; but I can say that you will have no reason to complain in that respect.

We have in St. Louis a very good system of parks, which we will be glad to show you ; and I think it is far better to offer to do that than it would be to promise to break the necks of so many bottles, or to turn you loose in so many large breweries, although possibly there may be large breweries in St. Louis. I have heard that there are. As the director of the Botanical Garden, and as a representative of the Florists' Club of St. Louis, I cordially welcome you to that city. [Applause.]

Mr. C. B. WHITNALL, of Milwaukee, Wis., invited the Society to hold its convention in that city, for reasons which he said he thought were of considerable importance. He continued : —

The Society of American Florists has already taken considerable interest in the horticultural department of the World's Fair, both individually and collectively ; and although St. Louis has many attractions,



of all of which we have heard, they will keep for another year, while the World's Fair will not. It has occurred to us that what little we were able to do for the Society of American Florists would be done in a more acceptable way next year than in any other year in which we could extend the invitation. We are but two hours from Chicago, and arrangements are being made all over our city to accommodate visitors. I think that by meeting in Milwaukee, you will be able to enjoy three days of business sessions, and have all the advantages of easy access to the World's Fair. Milwaukee is not a railroad centre, but the train service between that city and Chicago is excellent, as is also communication by water. Of course we have not the gardens and parks of which St. Louis can boast, and it is not our object to claim to do more than the best we can do for you, but we should like to have the opportunity of doing what we think would best promote your interests and your convenience.

Mr. E. G. HILL, of Richmond, Ind., in support of the claim of St. Louis, said that he and "Uncle John" Thorpe had been delighted with that city ever since their first excursion there, but that that gentleman, about a year ago, had been annexed to Chicago. As to the objection that St. Louis was "away out West," he reminded his hearers that that city was simply the starting point from which to go West, and that the Mississippi River must be crossed before the territory called "the great West" could be reached. He spoke of the rapidity with which a traveller could reach St. Louis from New York; the distance being covered between 2.30 o'clock P. M. of one day and 5 o'clock P. M. of the following day. He said he had heard the claim made by a Chicago man that Milwaukee was a kind of a suburb of Chicago. He preferred, however, that the convention should get far enough away from the influence of the World's Fair to be able to transact its business without having its attention diverted. He suggested that the members could go to the Fair after leaving St. Louis, and that after the good time they had enjoyed in the latter city, they would be more thoroughly equipped for appreciating Chicago. He thought that the visit to Milwaukee might be made a year or so later. He had nothing to say against that city or the florists there; but he was prepared to say that he had a warm feeling for the St. Louis boys and the whole-souled people of that city. He had never had a more enjoyable time than when he attended a convention there several years ago, at which they actually made Treasurer Hunt, of the Society of American Florists — who is a florist — the president of the Nurserymen's Association. Concluding his remarks in a humorous vein, he urged, among other inducements for the convention to visit St. Louis, that he would endeavor to get the Mississippi River on the biggest rampage that had ever been seen there, and that he would guarantee that the visitors would have a grand time. He urged,

by way of securing the valuable co-operation of the young ladies, that there were more young men in St. Louis than there were in Milwaukee, and that when they had gone there, the ladies would not be loath to concede that the wisest thing they ever did was to urge their brothers and friends to visit that city.

Mr. OTTO SCHUCHT, of Sheboygan, Wis., in behalf of Milwaukee, mentioned as additional considerations that that city was known for its good music ; that there was always a fine breeze there, if only for a few hours, in the afternoon ; that it was thoroughly clean ; and that many handsome ladies resided there.

Mr. J. C. VAUGHAN, of Chicago : Mr. President, while I do not speak as an advocate of Milwaukee, preferring to remain in a neutral position, yet I cannot overlook her claims. At the same time I acknowledge the force of all that has been said in favor of St. Louis. I was present in St. Louis on the occasion to which Mr. Hill has referred, and I know what Southern hospitality is from what the people of St. Louis did on that occasion for us. I hardly feel, however, that we ought to impose too frequently upon the generous disposition of our St. Louis brethren. I have risen more particularly for the purpose of saying a word upon the point made by Mr. Whitnall in regard to the convenience of transportation between Chicago and Milwaukee. I am sure that the cool, pleasant ride on the large steamers we now have running between the two cities would be most enjoyable. If, from lack of numbers, Milwaukee should not excel her rival in point of hospitality, her efforts in that direction, I can assure you, will not be lacking in sincerity and energy.

I am unable to appreciate the force of the objection suggested by Mr. Hill, that our members will run away from Milwaukee to attend the Fair. I certainly think that they will remain at our sessions until the adjournment. It goes without saying, that the rate to Chicago during the Fair will be very low ; the distance to Milwaukee, ninety miles, being covered probably at the rate of one cent per mile ; while that city may be reached over three good lines of railway as well as by the pleasanter and cooler water route.

Another consideration, and it is one that we cannot overlook, is the fact that our people do not wish to go to a Southern city at the usual time of our annual sessions. The session now in progress is largely attended, but I believe that many members have been deterred from being present because of the anticipated excessive heat in Washington in August. Then if we are to have the cholera in this country next year, there may be some florists who will not believe in drinking too much water. [Applause.]

Mr. WM. SCOTT, of Buffalo, N. Y., advocated the selection of St. Louis. He said that the Society had never yet, according to his idea,

held its convention far enough West. He thought that the opportunity to be afforded next year, by the extraordinarily cheap rates to Chicago, should be availed of, and that the Society should go to that beautiful city of the West — St. Louis — which he thought was eminently deserving of this recognition. He added that the ride from Chicago to St. Louis was a matter of only a few hours.

On motion of Mr. G. L. GRANT, of Chicago, the Convention proceeded to ballot.

After some discussion upon the manner in which the ballot should be taken in order to prevent other than bona fide members from participating, the President was authorized, on motion of Mr. J. M. JORDAN, to appoint as tellers to take the vote, four of the ex-presidents of the Society.

Messrs. John Thorpe, Robert Craig, E. G. Hill, and J. N. May were appointed as the tellers. These gentlemen proceeded along the aisles, and collected the ballots deposited in their custody; these being received only from actual members wearing the badge of the Society.

Subsequently, the tellers counted the ballots at the table on the platform, when the result of the vote was announced by Secretary STEWART, as follows: —

For Milwaukee, Wis., one hundred and forty-seven votes.

For St. Louis, Mo., one hundred and eighty-six votes.

The announcement by the chair that the Society would meet in St. Louis in 1893 was greeted with rounds of cheers.

#### MISCELLANEOUS BUSINESS.

Secretary STEWART presented and read a communication from Mr. Horace E. Smith, chief clerk of the weather bureau, Department of Agriculture, extending a cordial invitation to the members to inspect the points of interest at the weather bureau, including the forecast room.

On motion of Mr. C. W. HOITT, the invitation was accepted with thanks.

Mr. G. L. GRANT, of Chicago, announced that a meeting of the Committee on Express Rates would be held at the Ebbitt House, at noon tomorrow, for the purpose of formulating some plan of action to secure a reduction of express rates on plants and cut flowers.

Mr. J. M. JORDAN gave notice of a meeting of the Hail Association, to be held in Convention Hall this afternoon.

## POSTAGE ON CATALOGUES.

Mr. J. HORACE MCFARLAND, of Harrisburg, Pa., (having obtained leave for the purpose) said: Ladies and gentlemen, all of you who handle catalogues or price lists for the general trade are aware that you must mail them, and that, in mailing, you are compelled to make use of postage stamps. If you are sending out a thousand catalogues, you must put upon them a thousand or more stamps. This is not labor of a character that is very enjoyable, and therefore any proposition to simplify it or diminish the expense and bother of it will doubtless commend itself to you at once. A movement in this direction has been undertaken. It assumed tangible form at the last meeting of the American Association of Nurserymen, held in Atlanta, Ga., in June, when it was recommended that a memorial be presented to Congress, through the Postmaster General, asking for a pound rate on catalogues and like mail matter.

The newspapers now enjoy a pound rate, and consequently their issues are mailed in bulk, without stamps. They pay at a rate of but one cent per pound, and are thus afforded a very low rate of postage in the dissemination of their issues; the cost per single newspaper, under the payment in bulk, being but a fraction of a cent. The proposition, as far as outlined, is that this system shall be extended to include the interests which we represent. This will not necessarily involve a reduction of postage nor do I wish to be understood as suggesting any reduction. It need not cause any diminution of the revenues of the Government, even at the present rate of eight cents per pound, as any loss caused by payment in bulk instead of at a two-ounce limit would be more than compensated in the saving which will be effected to the post office department in the time and labor now required in the cancellation of the stamps so uselessly affixed to large quantities of catalogues, as well as in the printing and storing of countless thousands of stamps. Moreover, the delay incident to the labor of cancellation would be avoided by the handling in bulk, and more prompt despatch secured. The change would simply be a means of facilitating the transaction of our business.

If you are required to mail a catalogue weighing two ounces and two grains, you must pay for four ounces — a manifest unfairness. And, further, the postage limitation practically reduces the weight and interferes with the good appearance and effect of your catalogues; and this is a tender point with me.

I move, Mr. President, that a committee of three be appointed by the Society of American Florists, whose duty it shall be to memorialize the Postmaster General on this subject, requesting him to submit to Congress a draft of a law for a pound rate on catalogues and like matter. [Applause.]

Mr. J. D. CARMODY, of Evansville, Ind., seconded the motion.

The PRESIDENT invited further discussion, but no response was made.

The motion of Mr. MCFARLAND was then adopted; the Chair announcing that he heard no objection to it, and that therefore it would stand as a unanimous expression of the sense of the Society.

Subsequently (at the session of Thursday morning) the committee constituted in pursuance of the motion was announced by the Chair, as follows: Messrs. J. H. MCFARLAND, of Pennsylvania; J. C. VAUGHAN, of Illinois; and P. O'MARA, of New Jersey.

#### NOMINATION OF OFFICERS.

The PRESIDENT announced, as the next business in order, nominations for President of the Society for the ensuing year.

Mr. EUGENE H. MICHEL, of St. Louis, Mo.: I nominate Mr. WM. R. SMITH, of Washington, D. C., the present Vice-President. [Applause.]

Mr. J. T. ANTHONY, of Chicago, Ill.: I move that the nominations close. There are peculiar reasons at this time why we should select as our President a resident of the city of Washington. There is pending before Congress a bill to grant a charter to this Society, and the probability of its passage is very favorable. When we are chartered, the city of Washington will be our home; and it is appropriate that, when that charter goes into effect (which I hope will be within the current year) our Society should have a President at Washington. I therefore, second the nomination of Mr. Smith, and move that the nominations close. [Applause.]

The motion of Mr. Anthony was adopted without objection.

Nominations for Vice-President being in order, Mr. WM. SCOTT, of Buffalo, N. Y., said: Following a precedent which has been recognized for several years of selecting the Vice-President from the city in which the convention is to be held, I take pleasure in nominating for Vice-President, Prof. WM. TRELEASE, of St. Louis.

Mr. I. FORSTERMAN, of Newtown, N. Y., seconded the nomination.

No other name being presented, the Chair declared the nominations closed.

Nominations for Secretary being in order, Mr. EDWIN LONSDALE, of Philadelphia, nominated WM. J. STEWART, of Boston, Mass.

Mr. W. K. HARRIS, of Philadelphia, seconded the nomination.

No other name being presented, the nominations, on motion of Mr. C. W. HOITT, of Nashua, N. H., were declared closed.

Nominations for Treasurer being in order, Mr. J. T. ANTHONY, of Chicago, Ill., nominated MYRON A. HUNT, of Terre Haute, Ind.

No other name being presented, the nominations, on motion of Mr. J. N. MAY and Mr. JOHN WESTCOTT, were declared closed.

#### THE PROPAGATION OF ROSES.

The Convention listened to the reading of an interesting essay on "The Propagation of Roses," by Mr. PAUL PIERSON, of Scarborough, N. Y., which was generously applauded.

The essay was as follows :—

*Mr. Chairman, Ladies and Gentlemen,*—Many proverbs are the embodiment of truth, some of falsehood. As the "twig is bent the tree's inclined" belongs to the former category. This afternoon I am to tell you what little I know of correctly bending twigs as applied to rose growing, for I am to speak of "The Propagation of the Rose." As in man and the inferior animals, it is essential that the youthful environment should be such as to encourage healthful growth and correct tendencies, so in the propagation of the rose, it is of the utmost importance that constant attention and care be given to every detail that will aid the perfect development of our rose plant that is to be. Roses can be successfully propagated at any time of the year, though experience has taught us that better plants can be produced from wood taken during the late winter and early spring than at other seasons. At that time the plants are in their most vigorous condition having responded to the longer days and increased sunlight by producing wood that is firm, strong and healthy; fortunately this is also the season at which we are forced to do most of our propagating for the coming season's stock, in order to have plants in proper condition at planting time, so that in this case necessity and advantage go hand in hand. Earlier, the wood is apt to be soft and sappy, later the plants have become weakened through excessive heat and continued cutting.

In selecting wood from which cuttings are to be made, careful attention should be paid to the selection of only healthy and vigorous shoots. Wood that is mildewed to any extent rarely does well, as the diseased foliage is in a debilitated condition and unfitted to endure the ordeal of the unnatural conditions to which it is to be subjected for the month of its transformation from a fresh cutting into a healthy rooted one ready for its first pot. During this period when devoid of root the cutting is dependent on the healthy condition and vitality of the wood from which it is made, hence the necessity of care in its selection. Foliage infested with red spider should be avoided, as from the position in which the cuttings are placed in the bench with the foliage close to the sand, it is impossible to syringe the underside of the leaf where this

pest is wont to lurk, and as a result it multiplies so rapidly that by the time the cutting should be rooted, we find it eaten up, or so sapped of vitality as to be worthless. A cutting should never be made of wood whose foliage is black spotted, for every leaf so infected, whether the spots be large, small, many or few, is certain to sicken, die, and finally drop on the sand of the bench, there (if not removed at once) to breed the dreaded cutting bench fungus, and thus not only does your infected cutting die itself, but spreads disease among its healthy neighbors. If the cutting be made of wood too hard or over ripe, the tissues will have become contracted and the power to absorb water from the sand much reduced, resulting in the foliage quickly turning yellow and dropping, or if it roots at all, it will be observed that the callous forms very slowly, and the roots that finally develop do so after a much longer period than would be necessary with a proper cutting, and will be slender and lacking in strength, resulting necessarily in a plant wiry and without the vigor so essential to the best results; again, if wood be taken too soft, the young and tender foliage will evaporate moisture faster than it can be supplied, and the result will be a quickly wilted and ruined cutting. Wood that is half ripe experience has proven best suited to root quickly and strongly, and hence produce a vigorous plant; a condition that is hard to describe to a novice, but which is easily known at a glance, by the experienced. A good idea may be conveyed by saying that the condition of wood found on shoots whose buds are beginning to show color is the ideal, and in the best possible stage of maturity; but in my opinion it is not necessary that the shoot from which cuttings are made should terminate in a bud. It will be observed that I have insisted on the selection of perfectly healthy wood, and wood in the proper condition respecting maturity; but I am inclined to differ from the authorities regarding the importance attached to the selection of *blooming* wood for propagation. My objections to this practice are two-fold; first, it is very expensive. The time when most of us do our propagating is during the first three months of the year, January, February and March; we may do some earlier, some later, but much the greater amount of it is done in these months when the price of the flower is highest. Let us look at the subject from the standpoint of first cost of the cuttings for a moment, and we shall realize what a great, and I believe needless expense is here incurred. Flowering canes of the class of *Mermet*, *Bride*, *Cusin*, *La France*, etc., when cut back so as to leave at least two eyes on the plant, contain as a rule no more than six to eight joints; adopting the old rule of making the cutting at an eye, requires at least two eyes to each cutting, very often an eye or two will be wasted in making, so that each shoot taken will on an average make no more than three cuttings.

The price of cut roses will, of course, vary with the locality, but adopting the ruling price in New York for last season, we find that the

average price for this class of roses of good quality for January and February was about ten cents ; for March somewhat less, but would average for the three months about nine cents. Thus if only blooming wood be taken, and each cutting made at an eye, every cutting as it enters the propagating bed represents a cost of three cents ; but there is always an unavoidable loss occurring during the process of rooting and growth, through damping off in the cutting bed, and while becoming established after potting, and a certain proportion that are weak and unfit for planting when that time arrives ; so that to produce a thousand plants that will be in proper condition for planting, it will be necessary to take at least one-third more cuttings than the actual number of plants needed. This will raise the cost of the wood alone, from which the cuttings are made to grow a thousand good plants, to the snug little sum of forty dollars. To plant our rose houses at Scarborough requires something over twenty thousand plants, to produce which, in accordance with the two-eyed blooming wood theory, would represent a sacrifice of eight hundred dollars worth of buds, an expense, which if necessary, would certainly be a severe tax. If it be proven this great expense insures stronger or better plants, and therefore a product correspondingly greater, or of higher quality than could be produced from other plants, then we must admit its wisdom ; but on the other hand, if it be possible to demonstrate that this enormous drain on the product of our toil not only does *not* produce better results, but that it is a matter of grave doubt, if the advantage does not lie with the product of other wood, then there is but one conclusion, that many of us are yearly, needlessly and foolishly sacrificing thousands of dollars. I contend that cuttings made from blind wood not only produce plants fully as good in every way, but if there be any difference, better plants than usually grown from blooming wood. I do not mean by blind wood all the light, twiggy, wiry stuff that comes, but on almost every variety a certain amount of wood comes blind, and yet short jointed and firm, (there are some exceptions to this rule, Wooton being one variety that rarely produces a blind shoot, but it is true of most varieties), and where such wood can be obtained and taken when in proper condition, I believe it produces the very best possible plants. This wood should be torn from the plant, and the knife used as little as possible ; the cutting rooting much better when it is torn than when cut. My reasons for holding this class of cutting to be the best that can possibly be taken are several. First. Such cuttings root much more quickly, three weeks being sufficient. Second. The roots are both stronger and more numerous than can be obtained from other wood. I have frequently, on digging such cuttings from the propagating bed, counted from ten to fifteen strong, healthy rootlets started from the heel, and as abundant healthy roots are such important factors in the growth of a strong plant, the value of this point will be readily admitted. Third. This wood is



short jointed, and full of dormant eyes at the base, giving promise of abundant bottom shoots as the plants develop. To satisfy myself on this point, every plant that was planted on our place last summer had its pedigree with it, that is to say, a record of the class of wood from which it was made, whether blind, single-eyed, or selected two-eyed cuttings made from blooming wood, and the date the cutting was made, potted, shifted and planted. At the expense of a great deal of care we had these records follow every batch of cuttings from the time they were made until they were finally planted, when each lot was carefully labeled. This applied to every variety and to every plant on the place, so that we knew the complete history of every plant in the establishment. In planting we were very careful to allow no advantage to any class of plants, to avoid which we planted in bands across the benches. First, a certain number of rows of plants from single-eyed cuttings, then a number of rows grown from selected wood, double-eyed cuttings, and then those grown from blind cuttings; and repeating these changes in the class of plants until we had a series of such bands planted across each house. It is needless to say we watched the results of this experiment with great interest: and I wish here to confess that I fully expected to prove the great superiority of blooming wood as material from which cuttings should be made: but the plants grew and there were no startling differences developed, unless it be startling to say that in a few instances the *selected* wood showed signs of weakness, but as a rule with most varieties, there was *absolutely no difference*, either in the rapidity of growth, strength of wood, quality or quantity of flowers, general health, or in any other respect so far as I could see, and a number of gentlemen high in the fraternity, whose attention was called to the experiment, confessed to the same fact. From what I have said above, I do not wish to convey the idea that a double-eyed cutting made at a sacrifice of a bud will not produce a good plant, but I firmly believe that a blind cutting will produce fully as good a plant, at a saving in the aggregate of many a hard earned dollar, will root *quicker*, and with far less percentage of loss than the other.

In taking the cuttings care should be used to prevent the foliage from wilting. Our practice is to line a basket or box to contain them with wet burlap, and to frequently sprinkle the cuttings until they are safe in the sand of the bench. In making, the knife used should be keen, and the cutting severed by a quick, sharp stroke. The wood should not be held against the thumb, but free to avoid even the slight bruise that is unavoidable if pressure be brought against the knife. All very soft foliage should be cut away, and the old foliage trimmed back; this will prevent too rapid evaporation, and also enables us to place more cuttings in the bench without overcrowding. Our custom is to stick the cuttings about an inch apart in rows, and the rows about two inches apart; of course this is subject to variation as the cuttings may

be heavy or light. As soon as stuck every few lines should be soaked, so that the bed be thoroughly settled, and all crevices run together. Watering a propagating bed is largely a matter of judgment. After the first drenching the bed will probably require little water for a day or two, for if properly done at first they will be wet enough; but the foliage should be sprinkled daily, and if the atmosphere is hot, dry, or if windy, should be kept constantly moist. During the first week in the bench they should be kept rather wet, and constant care employed to prevent wilting; and a damp atmosphere maintained, though not a close one. After the first week, less water should be applied, though the condition of the sand should never be allowed to approach dryness. We use an iron frame bench with slate bottom, on which we place about two inches of ordinary sharp bank sand, well firmed down and perfectly smooth; and believe it pays us to remove all sand after once using, and replace with fresh for each successive batch of cuttings. A regular bottom heat, day and night, of not over sixty-five degrees, and a top heat of fifty to fifty-five degrees, with a free circulation of air will supply the right conditions of temperature. Shading is of great importance, as too much sun will bring *ruin* to a freshly stuck cutting, though a little night and morning, is I believe, beneficial, and as the cutting becomes harder more sunlight can be allowed. It must also be borne in mind that a draught of air is fully as injurious as sunlight; on windy days the beds must be protected or damage will result. I do not believe in shading the glass as often done, for the reason that such shade cannot be removed at will, and of necessity must remain both on cloudy days and at night, when all the light possible is desirable. Paper or other material spread directly on the cuttings is both untidy and a great deal of labor, but worse than either it prevents the free circulation of air over the bed, maintaining a close, warm atmosphere about the foliage that supplies the best possible condition for the spread of fungus. The most perfect arrangement for shading, so far as I have seen, consists of light frames made of furring strips, six feet long and the width of the bench. On these frames is tacked the lightest grade of muslin, tightly drawn and fastened around the edges with lath strips. This material allows sufficient light to penetrate, but shades from direct sunlight. At intervals of about a foot, lath are tacked across the under side to prevent the muslin from sagging. This makes a very light, durable and portable shade that can be used anywhere, as it fits both propagating bed, greenhouse benches or hot bed sashes. We have used them constantly for a year, and to all appearances they are as good as new. They cost but a trifle, and with us have become a necessity.

It may prove of interest to some here present to listen to a few words regarding summer propagation. As the days grow hotter in the late spring, and it is no longer necessary to maintain fire for the greenhouse, and undesirable to keep a special fire for the propagating bed, the

conditions in the greenhouse become unfavorable for successful propagation, for we now have a cool bottom temperature and a hot top, the reverse of what is needed. At this season and all through the summer, the very best results can be had by rooting the cuttings in hotbeds. The wood for this purpose should be grown under glass, and made the same as for indoor propagation; the hotbed may be made very cheaply by building upon top of the ground, and common hemlock boards can be used for sides. Beds thus made will retain their heat for a long time at this season. Make the bed the same as usual, and cover with from two to three inches of clean sand. When the heat of the bed has subsided to from seventy to seventy-five degrees the cuttings may be stuck; keep them thoroughly wet and covered with sash night and day, allowing plenty of air during the day and enough at night to prevent sweating. Keep shaded from direct sunlight, but not too dark. If careful there should be very little more loss than would occur indoors. This method will prove of great advantage to firms having a large trade in plants for bedding purposes. Stocks can be worked up during the summer when business is dull and work not so pressing, and carried over in cold storage to be sold the following spring. Stock thus grown will prove profitable alike to grower and purchaser, for it will both sell well, and grow well.

Before closing, allow me a word in regard to potting. When the cuttings have formed roots from one-fourth to one-half inches long, which will be in from three to four weeks if the wood and the conditions have been proper, they will be ready for potting. I do not believe in potting when the roots are shorter than this, for the reason that many other roots are just about to start, and they are not sufficiently strong to take quick hold of the earth, and thus insure rapid growth. On the other hand, if allowed to remain in the bench a day or two too long, the roots become long and wiry, making it much more difficult to pot them, and they lose something of their ability for quick work which is essential. It is just here at the potting stage that many an otherwise perfect batch of cuttings is lost or made worthless, the novice thinking that now they are so nicely rooted all danger is past, when the fact is, I believe that fully as many cuttings are lost after potting as when in the bench, and it is almost always through carelessness in regard to some little detail during the first few days. The cuttings should be carefully dug (not pulled) from the sand, and care taken to avoid breaking the roots, which if healthy are very brittle, the least touch snapping them. Great damage is often done by digging up a large number of cuttings at once, and allowing the roots to become dry before they can be potted. Only enough cuttings should be dug at a time to last the potter not over ten or fifteen minutes at the longest, and these should be in a box lined with wet burlap or some similar material, and every care taken to prevent wilting of either foliage or roots. The soil used for potting should be

the best that can be obtained, the same that is used for planting, and for this first potting should be sifted. If very heavy add a little sand, and see that the soil is neither excessively wet or dry. In the former case it will pack like a brick, and in the latter will absorb the moisture from the roots; in both cases retarding rapid potting very much. Do not make the too frequent mistake of potting too firmly. The old idea that a rose requires a soil packed as hard as possible is all wrong. Two quick pressures with the thumbs is all that is necessary, and a good ordinary potter, if the cuttings are dug for him, and the plants set, should pot from three hundred to four hundred an hour. As soon as potted, they should be set, thoroughly watered, and if the sun be shining, shaded. After this first thorough watering keep moist, but not wet until rooted through. Frequent moistening of the foliage will be a great benefit. Do not shade the plants too long after potting; for a day or two they should be shaded from direct sunlight, after which it should be allowed to shine on them morning and evening, gradually increasing the amount until after a week none will be needed, and the roots will be showing through, growth commenced, and "The Propagation of the Rose" completed.

The PRESIDENT stated that the able paper just read by its author was now submitted for discussion.

Mr. J. L. DILLON, of Bloomsburg, Pa., responded: Mr. President, the essayist, Mr. Pierson, has gone over the subject of the "Propagation of Roses" very thoroughly, and to my mind, satisfactorily; but I cannot agree with him as to the use of blind shoots for propagating. For several years I have been using the blind shoots of Bride and Mermet, for the simple reason that we received a high price for those roses; but I am positive that the result has proved detrimental, as the plants grown from them have a tendency in the dull days to make a wiry, slim growth without buds. I will say here, that from this time forward, I shall use nothing but blooming shoots no matter what the loss may be.

As to the use of two-eyed cuttings, I wish to say<sup>d</sup> that there is more substance and vitality in a two-eyed cutting than there is in a single-eyed cutting; and therefore they will more readily start, and will make a larger and stronger plant in less time. I am positive that if there is any benefit from either, the question should certainly be decided in favor of two-eyed cuttings.

Another matter to which I would call special attention is the potting of roses from the cutting beds. Nearly all florists use manure in their first potting from the cutting bench. I think the use of manure in the first potting is injurious. We take a good, loamy soil of decomposed sods, or from an old fence row, and consider this far preferable to that

in which manure has been used. The rose requires very little substance to start on. As soon as well started in two or two and one-quarter inch pots, we re-pot them in three inch pots, and use for fertilizer about one-twentieth or one-thirtieth of bone dust.

The selection of the wood for cuttings is another thing that requires a great deal of attention. I have gone into large establishments and found thousands of cuttings, every one of which had turned black. The cause was easily accounted for. If you went through those establishments you would find the soil on the benches saturated with manure — with two, even three inches of fresh cow manure upon them. This makes a watery growth, and you will never grow good roses from such wood. In our growing of roses we use very little manure, but fertilize with bone dust and nitrate of soda principally, keeping the soil well cultivated all through the winter. Nitrate of soda, if used largely, has a tendency to cause the buds to grow on the cuttings in the cutting bench before the roots, and should therefore be carefully used.

Mr. MYRON A. HUNT, of Terre Haute, Ind. : Mr. President, the thorough manner in which this subject has been handled by the gentleman who prepared the essay, would seem to make it unnecessary that anything should be added to what he has set forth. Those to whom I am well known here may feel surprised at any effort on my part to expatiate on the propagation of roses, for they well know that my knowledge of the business comes more largely from observation than actual experience. I have noticed, however, two or three points in the essay which have come under my observation, and as to which I may venture to offer some suggestions.

First. In relation to two-eyed cuttings, of which the gentleman who has preceded me has spoken, I have to say that I do not think there is any special advantage as between the two-eyed and the one-eyed cutting, unless it is in the rapidity with which a plant can be prepared for market. If the wood is in proper condition, and is taken from blooming wood, I think a one-eyed cutting is as good as the other kind.

In relation to heel cuttings or blind wood cuttings, whatever may be the experience of other gentlemen, my preference is for blooming wood. In the case of the propagation of the Perle, I think serious objections can be raised to the use of heel cuttings, from the fact that in that rose, we wish to avoid the growing of suckers from the roots ; and heel cuttings being full of eyes, suckers always occur.

With respect to temperature in house propagation, my observation is that in my own establishment, the highest degree of success has been attained with a temperature ten degrees higher than that which has been mentioned by the essayist.

Concerning potting, I wish to emphasize the remarks of the last speaker. I think we make more failures in the first potting by having

our soil too strong. I know that I have failed in successful potting many times when that matter has not been carefully watched, and the soil has been prepared by those not experienced in the work, who have made it too rich. For this use (the first potting of roses from sand) I believe that soil should be used without the addition of any fertilizing matter, other than such as may have been applied to the sod six months or a year before cutting and piling for this special use.

Mr. A. WINTZER, of West Grove, Pa.: Mr. President, having been a rose grower for about thirty years, I beg to say that my experience has been that it does not matter much whether a cutting is grown from a one-eye or a two-eye. I believe that the vitality and healthfulness of the young plants depend altogether upon the constitution of the stock plants from which they are cut. I have found that in order to get the best results, roses for propagating purposes should be specially grown. The best results are obtained by growing the plants in the most natural manner without any stimulating fertilizers. This secures a hardy and vigorous stock. We propagate roses at any time from September to June, giving our cuttings in the house a temperature of about sixty degrees, more or less. In about three or four weeks, with proper handling, they are ready for potting. I think it very important that they should be carefully handled for the first few days after they are potted. After that they will bear the same general treatment as any other young stock. The details of propagating have been so ably treated by Mr. Pierson that it is not necessary for me to say more.

Mr. JOSEPH HEACOCK, of Wyncote, Pa.: I move that a vote of thanks be tendered to Mr. Paul Pierson for his very able and instructive paper.

Adopted without objection.

The discussion here ended.

#### THE EUROPEAN BULB MARKET AND THE AMERICAN BUYER.

The Convention next listened to an essay on "The European Bulb Market and the American Buyer," prepared by Mr. JOHN RECK, of Bridgeport, Conn., which was read by the essayist, and greeted with much applause. It was as follows:—

*Mr. President, Ladies and Gentlemen,*—While I do not expect to be able to tell you something entirely new, I do believe that when a body of business men like this which is assembled here today, review a combination of existing circumstances which is detrimental to their interest, certainly some good must be derived from such action.

The subject under discussion is "The European Bulb Market and the American Buyer." Brothers of the horticultural art, I presume

that there is not one among you who has not at one time or another felt dissatisfied with the margin derived from his investment in bulbs. This includes the importer, the grower, the commission dealer, and even that king of all kings—the retail florist—who can all be heard to declare, season after season, that there is no money in bulbs.

Now there must be a reason somewhere. Let us look for it. Different men will give different reasons. One reason very often heard is unsatisfactory results in forcing. This very largely depends on the forcer, and cannot be brought into consideration. Another reason given is an overstock in the market. This seems to be a more likely subject to consider.

The reports of prices printed in horticultural papers are very unreliable, as the price of flowers, as well as of any other perishable product, is subject to great fluctuation, and an over-production of such perishable goods proves very detrimental to the general interest. We may now question, is there an over-production, if so what causes the same, and how can it be prevented?

All these preliminaries may seem to be a great deal removed from the subject at issue, but we shall get closer to them immediately.

Years ago, when the prices of bulbs was much lower, their blooms sold at considerably higher prices than they do now. The grower and the retail dealer then derived a fair compensation from an investment in that class of goods. Such as hyacinths, narcissuses, and especially tulips could then be purchased in Europe for less than one-half of the present prices. A few of our wide-awake horticultural merchants at that time took advantage of the steadily increasing demand on this side. They went straight to the spot where the stuff was grown, purchased in Europe at low figures, and sold at high prices to the American grower. A large margin was derived by those gentlemen, but as the bulb forcing was carried on on a limited scale, the result to the American grower was always satisfactory. The high margin derived on importation of bulbs attracted others, and soon the increasing number of American buyers attracted attention in the European market. As a result, the most enterprising firms sent agents direct to this country.

They did not come with their European price-list, but they studied and felt the market. Finding what high prices could be had and were received by the American importer, they returned home and reported to have found the new Canaan.

Their next move was to raise their prices to the American scale, send agents to this country, circumvent the importer, and sell direct to the grower. This forced the most energetic bulb merchants on this side to take a different course. They must prove to the European grower that it is to his interest to sell to them, instead of running the risk and selling through their own agents direct to the American grower. How was this to be done?

Contracts for large purchases were made in advance. Scarcity of bulbs in the European market was broadly announced, and given as a reason for the rise in prices. "Buy now or go without" was the war-cry. This continual cry of scarcity coaxed the American grower to make large purchases, for each one expected by buying great quantities to increase his profits largely.

The bulb fever had started and the demand steadily increased. Now there always has been, since the discovery of gold in this country, an opinion among Europeans that money is a great deal more plentiful here than the average American florist finds it to be. Imbued with that idea our European brethren took full advantage of the situation.

Combinations were formed to still more increase the prices. Year after year hundreds of additional acres of land were put under cultivation, and although the produce became thereby a great deal larger, the high prices were maintained in the Netherlands and in Germany, while in France, by reason of the collapse of combinations, the prices fell considerably. A year ago while in Europe, I found it to be the general opinion of growers that the large and steadily increasing demand from America had not only caused the steady increase in price, but also a decrease in quality of the product.

This decrease in quality is easily explained. As mentioned before, year after year hundreds of additional acres are employed in the bulb production. These additional acres are mostly cultivated by irresponsible parties, and all of these grow under contract for larger firms. In this way a large quantity of inferior stuff gets into the market, protected by the names of established houses, and America has got to be the dumping ground for the largest part of this inferior stuff.

This contract growing system also explains why *Narcissus Von Sion* are so often mixed with a liberal sprinkling of *Incomparable* or *Poeticus*, or how your Berlin Valley pips, supposed to be grown in the light soil of the Mark Brandenburg, have been grown in Mecklinburgh, or in Friesland on heavy soil.

This is about the present situation of the European market. Now let us spend a few minutes with the American buyer.

The forcing of the European market by such large purchases as have been made these last few years from this country, has not benefited the American florist as much as it has the European grower and the importer. Our flower markets these last few years were so plentifully supplied with bulbous flowers that very often they were sold at the cost price of the bulb and sometimes for less, at the loss of the American buyer. The now prevailing idea that it is necessary to buy large quantities in order to make bulb forcing pay, has I believe, in most cases not proved a success. A few of the largest wholesale growers have a slight advantage. By reason of careful study they bring an even supply



in the market, and so catch the better as well as the poor prices, which may give them a small margin on bulb forcing. But the margin is certainly lost again by the effect on the price of other flowers which a large supply of bulbous stuff always brings about. It is much different with the smaller growers which are naturally in the majority. They also think it is necessary to buy large quantities, but not having the advantages of their larger brothers, invariably lose money.

Reduce your purchase of forcing varieties. Down will come the prices of such bulbs. Your flower markets will not be over-stocked with the produce, and better prices will be received throughout. To accomplish this, united action is necessary, and there is no reason why such movements should not be successful in horticulture, and why the Society of American Florists now grown sufficiently strong and far reaching, should not follow in the footsteps of so many other trades associations by adopting measures which will benefit the majority.

Let every member of this Society who handles bulbs, open a bulb account on his ledger. Let him charge on one page not only the cost of bulbs, but also the cost of boxes, pans or pots, or as the case may be, all labor and other expenses occurring from the day of arrival of bulbs until the flowers are shipped and sold and the money jingles in his pocket.

On the opposite page let him enter his receipts, and at the end of the season, say the end of June, let him send a copy of the result to the *American Florist*. Let them post up the sums of all reports received, and publish the result. In this way every one of us will get to know facts, and the experience and learning of one will be the benefit of all.

Another point in view. Don't buy without a guarantee. The best guarantee is not to pay for your bulbs until their bloom has convinced you of their being what you bought. European houses will agree to this, and the American bulb merchant will when he has to. Margins taken by horticultural merchants are sometimes larger than the remuneration received by the grower. For instance, I found last year that the florist consumers of the middle and south of Germany, Austria and Russia, paid two hundred dollars per one thousand for *Lilium Harrisii* such as are sold here at twenty-five dollars per one thousand.

Considering the price of labor in Europe, forcing varieties of bulbs grown there should cost much less. Good workmen employed in the cultivation of bulbs receive a wage of fifty cents per day. It is plainly visible that a reduced demand for forcing bulbs from the American consumer would bring down the prices of bulbs in Europe to where they should be, and that a smaller supply of bulbous stuff in the flower markets of this country would gain a more reasonable margin for the American florists. Both these objects can be gained by a united action of the American growers.

Discussion was invited.

Mr. WM. SCOTT, of Buffalo, responded: The paper to which we have listened is a very practical one, and as I am one of those whom the essayist would call "medium growers," I would like to say that I think he hits the nail on the mark when he says "order small." I would like to excuse the Dutchmen, of whom he has spoken, for slightly putting up the price on the tulips, because the demand became suddenly so enormous. Fifteen years ago, two thousand tulips would supply the city of Washington, and now possibly one million are grown and sold in this city. A few years ago we began to discover that the tulip would be a profitable flower to sell as a cut flower. The tulip craze soon spread over the country. I do not suppose that five years ago there were five hundred tulips grown in the city of Buffalo. Last year I grew about sixty thousand. Eight years ago we easily got one dollar a dozen for them. The Dutchmen never increased their price on the hyacinth, but sell them today for the same that they sold them for fifteen years ago, because there has been no specially great demand for the hyacinth. Now, my advice to you all is to deal with the people who live in America, and let them do the importing, for they know how to handle the foreigners better than we do.

Mr. EDWIN A. SEIDEWITZ, of Annapolis, Md.: Mr. President, I desire to say a word in regard to the Lily of the Valley grown in Germany. I think that the statement of Mr. Reek, that the Lily of the Valley is grown and sold there for eight marks per thousand, is incorrect. I visited Germany, and having had an experience of three years there, I know well that none are sold at a lower figure than twenty-four marks per thousand. On many nights I have been in an open shed there selecting the two-year pips. The gentlemen under whom I served at Leipsic and Hamburg, proved to me that they were not making any profit by selling the Lily of the Valley at twenty-four marks per thousand. The only reason why Germany can produce that plant at such a figure is, that the rate paid for labor there is so frightfully low. A German gardener receives fifteen marks (\$3.75) per month without board, and perhaps is given a barn as a place to sleep in.

I do not think we should try to put the German down as a bad fellow and one who is trying to suck the life blood out of us Americans. This is why I protest against the remarks of Mr. Reek on this point. I esteem the integrity of the German above all things, and am proud of that people because there is German blood in me. [Applause.]

Mr. S. V. SMITH, of Baltimore, Md., remarked that he did not think the author of the essay would attempt to sell bulbs upon the principle which he advocated in regard to buying them. He thought it doubtful whether they could be bought in Europe upon the understanding that they would be paid for according to results.

The discussion here closed.

## REPORT OF NOMENCLATURE COMMITTEE.

Mr. J. N. MAY, of Summit, N. J., here presented and read the following report of the Nomenclature Committee : —

WASHINGTON, D. C., Aug. 15, 1892.

The Committee on Nomenclature met this evening, there being present Messrs. Craig, May, Lonsdale, Dawson, Forsterman, Saul and Smith, and effected organization by the election of Mr. Craig, temporary chairman.

On motion of Mr. Lonsdale, Mr. E. A. Wood was added to the committee, and that gentleman was elected Secretary.

A letter from Mr. Herr was presented, protesting against the use of the names "Edwin Lonsdale" and "W. F. Dreer," applied to carnations by Mr. Haettle. The names having been previously registered upon the records of the American Carnation Society by Mr. Herr, it was moved that Mr. Haettle be notified that his use of the names could not be allowed.

The attention of the committee was drawn to the fact that the carnation Cæsar had been placed upon the market under the name of Zebra, and it was moved that Mr. Wm. H. Maule be requested to withdraw the name Zebra, Cæsar being the correct name of that variety.

It is the opinion of the committee that the carnation, Lady Emma, as grown around New York, is but a selected strain of Portia.

The chrysanthemum exhibited last fall in New York and Philadelphia, under the names of Marguerite Graham and Marguerite, was a variety grown by Mr. Henry Standen, and named by him Ruth.

The committee would recommend that no prizes or certificates, or any recognition whatever be given to seedlings exhibited without names. This rule to be applied to "Florists'" flowers only.

The committee wishes to note the fact that the hydrangea known commercially as Otaksa, is but an enlarged variety of *Hydrangea hortensis*, and is not the true Otaksa of botany.

The chrysanthemum, "Annie May," awarded a certificate of merit at Philadelphia in 1890, has been disseminated under the name of "Ella May."

The sub-committee on roses report that no re-naming of roses has been noted or reported, and that the work done by this committee has borne good fruit.

The sub-committee on orchids and bulbs reported that no case of re-naming has been noted or reported.

The committee desires to state that a list of synonyms of shrubs will be published in the Annual Report of the Society.

ELIJAH A. WOOD, *Secretary*.

On motion of Mr. ROBERT CRAIG, of Philadelphia, the report was received.

Adjourned until evening.

## SECOND DAY — EVENING.

## HINTS ON HYBRIDIZING AND IMPROVEMENT OF PLANTS.

The session was opened with an essay entitled — “Hints on Hybridizing and the Improvement of Plants,” prepared by Mr. RICHARD BAGG, of Bridgeton, N. J. In the absence of the essayist, the paper was read by Mr. JOHN N. MAY. It was as follows :—

The only law relating to this subject that I am aware of is “Like produces like or the likeness of some ancestor.” Plant some variety of nasturtium seed, say Empress of India, and it will come true to kind; if we ask why this is so, the answer is that for years the plants have been bred by careful selection of those for seed until the strain was fixed. In other words, there are generations of ancestors behind it of the required type.

Plant General Jacqueminot rose seed, and the result will be a lot of nondescripts, with perhaps a few approaching its parent in size, color, etc. This seems to contradict the law; but, on second thought it can be readily seen that it proves it, for the Jacqueminot has no more ancestors now than the day it originated; all the plants of this variety in existence are young wood of the original plant. If we were to select from General Jacqueminot’s seedlings one or more that are most like their parent, save seed from them, sow and select again, and so on for a hundred years more or less, we could get a strain of seed that would produce true General Jacqueminot roses. Of course, any admixture of foreign pollen would have to be guarded against. Apples, pears, anything, in fact, could be made to come true from seed by following this plan.

So far we understand this law and work in accordance; but it does not satisfactorily account for fine varieties suddenly coming into existence, often by unaided Nature; crossing and hybridizing may produce them, but if once why not always?

It is doubtful whether much advance can be made in this line unless seedlings are selected for crossing with a definite purpose in view, with a strict regard to get nearer a given ideal, and the ideal should be more than a flower—it should embrace the whole plant. Take the carnation for example, we want strong stems, compact, healthy foliage as well as fine flowers; and the time is coming when size and color alone will not pass a carnation into favor, beauty of form and distinctive fragrance will be required in them as much as it now is in roses. People are learning to appreciate perfection in flowers faster than it is produced.

We cross varieties, A with Z, B with X, not knowing exactly how it will result; for, though surely there are laws that govern this, they have not been discovered, consequently we work in the dark. The probabilities

are that the qualities of plants are decided in the embryonic state at the time of fertilization; but what are the influences that work when a fine variety of fruit or flower is called into existence? Are the conditions that govern its production hidden in the soil, the atmosphere, the plant, or is a combination of all required? A carefully kept record of all the plants crossed, failures as well as successes, would help us to see into Nature's plan of working; and if we could find time when making a cross to note the state of the weather, amount of moisture in the air, temperature, etc., also the condition of the plants, it would be interesting to notice if it affected the results in any way.

Hybridizing is crossing distinct species, and often produces plants incapable of bearing seed—mules in fact—and who can tell what a mule will be? Teas crossed with perpetuals belong to this class, and the seedlings from this cross seem to have some element of discord in their constitution; many are weak growers, some start off as if they always intended to climb and never bloom; others seem strong and robust, but generally the flowers are not as large as those of either parent. Roses can be crossed at almost any time except perhaps during the short winter days. Seed should be sown as soon as ripe, and will germinate in from three weeks to three months. Seedlings from teas crossed will bloom when a few months old; those from teas hybridized will take from a few months to several years. I have some four years old that have not bloomed and they don't look as though they intended to.

Carnations are easily grown from the seed. A large proportion will be double with a great variety of colors, shades and markings. In every lot of seedlings there is almost sure to be a few equal to *some* of the named varieties, but we want something *better*, and they come up scarce.

The best time for crossing carnations is in March or in the early part of April; later the sun makes the houses hot, and the seed does not set as well, and insects are more apt to interfere. When ripe, pick and put away. Sow soon after the middle of January, keep moderately wet until they germinate, then stop watering; do not give any more until the plants are large enough to pot. Never mind the soil looking dry, it will not hurt them at that season, and if watered they are liable to damp off. After potting treat the same as rooted cuttings, and they will begin to bloom freely in July. Those that do not bloom before it is time to house them are not apt to be as free as the earlier bloomers.

There has been some discussion as to which parent seedlings will most resemble. The majority seem to think that the male has the dominating influence, but as this is an open question, we will take a walk among the seedling carnations now beginning to bloom, and see if any are advanced enough to help give light on the subject. There are eighteen plants of Anna Webb crossed with Portia, thirteen of them have the Portia foliage, while in five it is intermediate, only three

in bloom, two scarlet, one crimson. Next, seven plants from Portia crossed with Anna Webb, two with foliage resembling that of Anna Webb; five with distinct Portia foliage, one in bloom of a crimson color. Then nine plants of Hinze's Improved crossed with Buttercup. (Hinze's Improved is a seedling resembling Hinze's White, but with a somewhat stronger stem.) Five have foliage like Buttercup, the remainder intermediate, three in bloom with light yellow flowers and good stems. Next, eight plants of Hinze's Improved crossed with Lamborn; all like Lamborn in foliage, and full of white bud and bloom, none averaging over a foot in height. Both parents appear to be represented in the flowers, but until cooler weather it is hard to tell much about it. This makes forty-two plants, the foliage in thirty of these resembles that of the male, and in twelve that of the female parent.

Have crossed a single white petunia with a colored double one, and the results have been both double and single flowers, ranging in color from white through dull lilac to full red; but the division of color does not often run so uniform between the parents. Some seem to assert themselves no matter which side they are on. Take the Wootton rose for example, cross it with Bon Silene, and the result is red roses looking like extra poor Woottons; cross it with Madame Hoste, red roses again, reverse the cross but the results are similar, all the seedlings take after the Wootton in foliage, form and color of flowers.

The most remarkable seedlings I ever had were about a hundred strawberry plants, every one was prolific and all except two or three bore large to very large berries. This set was produced by crossing Crescent with Sharpless, selecting a fine berry from the seedlings and crossing it with Parry. Have thought of trying these crosses again to see if the results would be similar, for it is such a strange experience to have nearly all the berries large, when usually they run small with perhaps a few of a fair size in the set.

Should any one wish to grow some seedling strawberries be sure to take for the seed the first berry that ripens on the selected plant, for it will give the best results, and the last berry ripe is the poorest.

It can be said that our path is literally strewn with flowers, but, for all that, we are not exempt from thorns. Difficulties known and unknown stand in the way; unremitting attention is necessary to attain any degree of excellence, though so much has been done in the way of improvement of plants the work is only in its early stages of development. The field of possibilities spread out before us is greater than that of Columbus when he discovered the New World, or of Ponce de Leon when searching for the fabled "Fountain of Youth."

The paper received the usual compliment of applause.

## THE WORLD'S FAIR AT CHICAGO.

Mr. JOHN THORPE, Chief of Floriculture at the World's Columbian Exhibition, was here called upon by President DEAN, by whom he was presented to the Society with the remark that he needed no introduction.

Mr. THORPE was cordially greeted. He said that he appeared before the Society as a servant who had been trying, for the past year, to do what he could for his master's interest, and that, while he felt that the showing he had made was a poor one, he believed that he would receive charitable treatment in view of the difficulties he had encountered.

Alluding to the unprecedented character and colossal proportions of the great undertaking at Chicago, he said that no one could have an adequate idea of its magnitude, and that it would prove to be, not only in the division of Horticulture, but in all that pertained to the material advancement of our country, an event of greater importance to the United States than any that had preceded it. He continued:—

It is safe to say that, by this time next year, we will be at least fifty years ahead of where we are now. This may seem to you an extravagant statement, but I assure you it is fully warranted. I feel that I ought to ask you to do all that you can to help me in this great work, and to do this not for my interest, but for your own interest, and not alone for your own interest but for your country's interest. I want every member of the Society of American Florists to realize that John Thorpe is his servant, and to ask John Thorpe to do something for him; and it will be done.

I regret to say that, in some divisions of the department, there is not that interest manifested by Americans that ought to be manifested. On the other hand, the Europeans are awake and know what they are about. They will occupy every square inch of space that is at our disposal; and they are making the most liberal expenditures with that object in view. I feel that it is not right that our people do not take a more active part in this great work, but are permitting the people on the other side to take precedence of them. We are making progress, however, and it is not yet too late to make amends for any remissness.

I will take this opportunity to give you a brief description of the arrangement of the space allotted to the Department of Horticulture. The entire area of the floor space in the Horticultural Building is, roughly stated, 240,000 square feet; of which the two open courts in the centre of each wing of the building take up about 47,000 square feet. One of these courts is being prepared for the aquatic display, tanks being in course of construction. The other court will be devoted to plants from California. Of the remainder of the building, something like five and a half acres has been set aside for floricultural purposes. This space is divided into three distinct departments, in each of which the temperature can be maintained at the requisite degree to suit the different kinds

of plants that will be on exhibition. As to the heating apparatus, the actual amount of piping necessary to heat the building will be more than fifteen miles in length.

The area that I have stated does not by any means represent all of the space that will be devoted to floriculture. Other interests are to be provided for besides those of actual plant life, such as florists' supplies, designs, receptacles for plants and flowers, pots, fancy baskets, boxes, jardinières, designs for laying out ornamental grounds, cultivating appliances, seeds, etc. All these will be represented in a separate portion of the building; and many firms in these different lines will install exceptionally fine exhibits, showing the great improvements that have been made.

Greenhouse structures will be exhibited on the grounds near the building by many of the best firms in the country engaged in the construction of plant houses of all kinds. I have no doubt that the very latest methods and ideas in this class of construction will be exemplified, together with the many forms of ventilating apparatus and heating of plants, all of which may be examined and compared under varying conditions.

The wooded island for outdoor exhibits, covering about seventeen acres, will present one of the most beautiful scenes ever witnessed on the face of the earth. It will be the key to the Fair Grounds, its location being such that every building can readily be seen from this point, either in perspective or directly in front. All the material requisite for the prosecution of our work on the island has been furnished.

The dome of our main building in the Horticultural Department is admittedly one of the most beautiful pieces of architecture ever constructed. It is 187 feet in diameter and 113 feet high, and is surrounded by a gallery of twenty-seven feet. It is the present intention to build under the centre of the dome a structure representing a mountain, which will be eighty feet in diameter, at its base, and about sixty feet in height. On the various surfaces of this structure many of the large plants will be placed. At the base of the miniature mountain there will be an irregular margin, averaging about thirty feet in width, gradually descending from the rock work to the grade of the walk surrounding the whole. By using the material that has been promised to us we expect to give this structure an appearance different from anything of the kind heretofore erected.

In Europe, with their many years of experience and their numerous private conservatories, they have specimen plants which it has taken a century or more to produce. It is not the intention of the department to try to equal these particular specimens, but it is the intention of the department to cover the whole floral kingdom, as far as it can possibly be done; in other words, to begin with the first letter of the alphabet and go through the entire list. Those which are exhibited may not all be



principal specimens, but they will be the best forms of their particular class. Let it be borne in mind that the exhibition is not alone America's Fair nor Europe's Fair but that it is "the World's Fair." We want to have displayed there everything beautiful in the world of floriculture which is obtainable by our means and is within the range of cultivation. It does not make any difference whether it be a five cent package of seed from which you can get the results of a quarter of an acre or whether it be an expenditure of a thousand dollars on a plant like *Cypripedium Chamberlainianum* — we want the five cent's worth of seed and we want the *Cypripedium Chamberlainianum*; and we do not want to place the *Cypripedium Chamberlainianum* "behind bars." [Applause.] The opportunity is offered to us to take care of all the native plants of America — and no man has more appreciation for the American plants than I do; I may add that there are not many men who know more about them. [Applause.] It is however a peculiar condition of things when I am forced to confess to you that, if I want to get a package of native American plant seeds, I am compelled to send to Europe for it. That does not reflect upon the Europeans; it may be a reflection upon ourselves.

I want to say, in regard to that department with which I am identified, that we hope to have on the first of May next year such an aggregation of beauty as has never been seen in America. You will have to help me — all of you — in creating this aggregation. We want to have that display kept up, in its several sections, throughout the exhibition, which will continue from the first of May to the end of October. It is proposed that the divisions shall be so arranged that everything worthy of exhibition may be fairly represented. The arrangement is that at least thirteen or fourteen specific periods shall be set apart for the different plants and flowers as they reach their respective seasons of maturity. I regret that I have not fixed the dates of those periods; but you will understand that we want to have roses in June, gladioluses in August and chrysanthemums as early as we can get them in October.

In regard to applications for space in our department, I may say that the applications already made cover more than double the amount of space that is at our disposal. As I have already stated, upwards of 250,000 square feet in the building have been applied for by intending exhibitors in this country, and about seventeen acres have been applied for on the outside grounds. But the total floor area is only about 240,000 square feet, and of this about two-fifths has been allotted to foreign countries; some of which, notably France and Germany, are anxious to obtain large areas in excess of those already assigned them. This of course will necessitate considerable cutting down when the assignments of space are definitely made; but the same care and expense for an exhibit smaller in area than originally intended, will have the effect of enhancing the beauty and attractiveness of that exhibit, without impairing its usefulness as an advertisement.

I repeat, that the amount of space asked for by Europeans exceeds by one-half the total applied for by Americans. This is not as it should be. The Society of American Florists, for instance, ought to have a pretty fair representation in the World's Fair. You have an opportunity to be fairly represented. I want to ask if all of you cannot grow something for exhibition, if only just a wee little thing. It does not matter how small it is so that it is something of your own handiwork, upon which you can have your own tag, and which will enable your children and grandchildren, in later years, when they look back at the great Fair, to say: "That was at the World's Fair, in 1893; my father showed that." Now will you not think about this and try to grow something for us? This Society has now more than a thousand members. Suppose each member should grow five plants for us. What an aggregation those five thousand plants from the Society of American Florists would make. Let every member put his name upon his exhibit and let the people examine them. Do not forget that fifty millions of people are going to see the show.

I am informed this morning through the mail by Mr. Samuels, Chief of the Department of Horticulture, that he has received a letter from Mons. M. L. de Vilmorin, at Paris, stating that Mons. Lefebvre, the famous French horticulturist, formerly in charge of the Trocadero Gardens, the most famous in France, has been selected to take charge of the French horticultural exhibit in Chicago. Mr. Samuels also asks me to say to the members of this Society, that he hopes they will do all that they possibly can to keep their end up with that of other countries, as otherwise they may not be able to compete with our enterprising neighbors across the water.

Mr. Thorpe at this point exhibited a handsome lithograph of the World's Fair Horticultural Building, and stated that he had made arrangements for supplying each of the members, when leaving the hall, with a copy of the picture. He then added that he would be glad to respond at this time to any inquiries by members concerning the work committed to his hands. He retired amid long continued rounds of applause.

Mr. E. G. HILL, of Richmond, Ind. : Mr. President, it was my good fortune to be in Chicago a few weeks ago and to have the pleasure of looking over Mr. Thorpe's work while there. I am afraid that you may infer, from Mr. Thorpe's preliminary remarks, that things are not going just as he would have them go, that is that they are not upon the scale that he desires. Now I do not want you to under estimate the value of what Mr. Thorpe is doing, for I can tell you he is planning magnificently. In fact I do not know of any one who can compare with Mr. Thorpe in the thoroughness of detail and beauty of conception which characterize his magnificent plans for that grand enterprise at Chicago. [Applause.]

It was my privilege to visit the Paris Exhibition and to inspect its horticultural display, and I can say to you in all sincerity that that exhibition will be immeasurably surpassed by the one we are going to see with our own eyes next year in the city of Chicago. To Mr. Thorpe we are indebted for the inception of the magnificent plans now being carried into execution. They are still partly in embryo, but if you will go to Chicago, look at the houses and talk with Mr. Thorpe and his assistants, you will recognize that everything has been done that it was possible to do. I can assure you that you need have no fear about the outcome at Chicago under Mr. Thorpe's management.

I think, as Mr. Thorpe has stated, we have all been remiss in making applications for exhibition space. I do not want you to think that I am not going to be at Chicago, for I did apply for space, but it must be conceded that we have not held up Mr. Thorpe's hands as we should have done. I know of firms who occupy acres of ground in the growing of trees and shrubs from whom not a single application for space has been received. This is not right. The wooded island which has been spoken of may be monopolized by the foreign nurserymen. It would be a singular spectacle and a sad one, if upon going there we are obliged to make the humiliating confession that the Englishman or the Frenchman has shown more interest in and given more help to the advancement of horticultural science than have we Americans, and thereby swelling his own pocket-book. This ought not to be, and therefore I want you to take to heart tonight Mr. Thorpe's appeal, and to follow his advice. If we cannot grow fifty plants for the exhibition, let us grow five plants, or if not five, then a single plant; and when we have put our card on it, send it to Chicago, and thus encourage "Uncle John" in the grand work he is doing there. [Applause.]

Mr. ROBERT CRAIG, of Philadelphia: I had not intended to speak on this subject, but in view of its conceded importance I have thought it would interest those present to know what we in Pennsylvania are doing for the World's Fair.

The State of Pennsylvania appropriated for all purposes for the World's Fair the sum of \$300,000. A number of horticulturists connected with the Pennsylvania Horticultural Society applied to the State Commission for recognition, and asked that \$25,000.00 or \$30,000.00 be set aside for the purposes of a horticultural display. The Commission evidently did not appreciate the importance of horticulture, and the appropriation made to us was only \$12,000. In view of the amount of space that is to be filled in that large building at Chicago, we concluded that it would not be wise to try to purchase plants with such a small sum, and we therefore endeavored to interest amateur growers owning large and fine collections and induce them to loan their specimen plants. In this I have been associated with Mr. Joseph Coates Walker, the

Chairman of the Horticultural Commission, and we have been working upon the plan for the past month. We have received a very prompt response on the part of the amateurs. Mr. George W. Childs is going to send to Chicago at least two carloads of plants. Mr. Drexel also will send all of his finest specimens. We expect to receive from individual florists a number of plants which it has taken years to grow; and the collection, we hope, will be further augmented by the loan of plants from a number of institutions around Philadelphia. We will also receive from Mr. Chas. Clark, Capt. Vandegrift and other amateurs in Pittsburg and vicinity very valuable contributions, and some from Allegheny Park conservatories. I believe that if similar steps are taken all over the country by the horticultural societies or by the florists' clubs in the different localities, a great deal could be accomplished in the way of helping Mr. Thorpe to fill the Horticultural Building in a creditable way.

As Mr. Thorpe has remarked, our own country does not seem to appreciate the importance of horticulture as foreign nations do. For instance, the government of Japan appropriated for all purposes for the World's Fair the sum of \$600,000.00 and one-sixth of this (\$100,000.00) for a Japanese garden; while throughout Europe — in France, Germany, Belgium and England — a wonderful degree of interest has been manifested in securing proper representation in horticulture. I think it is not yet too late for decisive action. I understand that in many of the States the money for World's Fair purposes has not all been allotted, and I think it would be a proper thing for the florists' clubs connected with this Society to apply to their respective State Commissions for a share of the money. This has been done in Pennsylvania, and it may have been done in some other States. I merely throw out the suggestion as one that may bear good fruit. [Applause.]

Mr. HILL. I am requested by Mr. J. M. Gasser, of Cleveland, Ohio, to inquire of Mr. Thorpe as to what provision has been made for the display of cut flowers.

Mr. THORPE. All flowers will be represented in their season. We expect to have tulips in May and chrysanthemums in November. All the herbaceous plants will be exhibited in their season, with everything on the catalogue, and probably many things not on the catalogue. I think the ground will be fully covered.

#### THE QUESTION BOX.

The Question Box was here taken up, and the PRESIDENT announced as the first question for consideration, the following: "What are the Best Twelve Varieties of Carnations for Commercial Purposes?"

A response prepared by Mr. H. E. CHITTY, of Paterson, N. J., was read as follows: —

## THE BEST TWELVE CARNATIONS FOR COMMERCIAL PURPOSES.

*Mr. President, Ladies and Gentlemen,*—The task has been assigned me of naming to this Convention the best twelve carnations for commercial purposes. The question does not very clearly define what is meant by commercial purposes, but I have taken it for granted, and acted upon the presumption that the object and purpose was to so canvass the subject as to assist in determining if possible what twelve carnations were of the greatest value for general culture; that when their flowers were placed upon the market would command the readiest sale, realize the most remunerative prices, and so return to the grower the best possible result for the capital which he has invested in their culture.

Although the duty assigned me seems to present some perplexing features in consequence of the variable conditions of climate, soil, taste and fashion, I still regard it as a pleasant one, because I believe the honest efforts of any member of our fraternity to elucidate and render valuable whatever question this association may deem of sufficient importance to call up for consideration, will be regarded with favor, and appreciated by a very considerable portion of this honorable assemblage. And while I am fully aware that a carnation may possess conspicuous merits and become highly esteemed in one or more of our leading cities, obverse action of a part or all of the conditions mentioned might result in rendering it comparatively valueless in other sections of the country. For instance, a beautiful soft scarlet variety named Florence is quite a favorite in the city of Boston, while to me its flowers did not command sufficient respect to make its continued culture desirable, notwithstanding diligent and persevering efforts on my part. Again we are occasionally informed through the horticultural press, that the old white variety, President Degraw, is still successfully and advantageously cultivated in certain places, and this variety was at the height of its popularity twenty or more years ago. These and other instances that might be cited would seem to indicate that while some carnations will attain an almost national importance, others will not reach far beyond a mere local value. These considerations, therefore, have induced me to confine my selections to such varieties as have gained a widely extended popularity in consequence of possessing in a marked degree, several attributes of quality generally recognized as essential in the make up of a first-class carnation; and as the white varieties form at least half of all the carnation flowers sold, I have placed them first upon my list.

No. 1. *Lizzie McGowan*.—This very distinct carnation has already become very popular, and has evidently come to stay, and is destined to take the lead as a white for some time to come. The plant is of a thin wiry habit of growth, the flowers are pure white, large, and produced in greatest profusion continuously, on long, stiff, though slender stems. It is also a most excellent shipper. The peculiar thin wiry habit of this

variety will admit of at least twice the number of plants being set to a given space as could be used of Silver Spray, or any other white variety that I am at present acquainted with; and the fact that during last December and the first half of this year, in the neighborhood of three-quarters of a million of young plants were distributed to the trade of this one variety, will secure for it a very extensive test during next winter.

No. 2. *Silver Spray*.—In habit this is exactly the reverse of Lizzie McGowan, being a strong, heavy grower, an abundant and continuous bloomer, and possessing so many desirable qualities as to endear it to a large number of growers in the vicinity of New York, and in fact throughout the country its flowers have formed a very large proportion of all the white carnations sold during the last three years.

No. 3. *Grace Wilder*.—Second in importance are the pink carnations, and probably no variety of any color ever gave such general satisfaction, or became such a universal favorite as this one, and it has supplied fully half of all the colored carnation flowers that have been sold in New York during the last seven or eight years. In addition to its adaptability to general and profitable culture, its chief fascinating feature is found in its peculiar and lovely tint of peach-blossom pink, which makes it so desirable, and secures for it a ready sale wherever offered in reasonably good shape. I anticipate that next winter will develop some startling experiences in carnation culture, but I very much doubt if a successful rival to Grace Wilder is yet in existence.

No. 4. *Daybreak*.—A magnificent carnation, and although quite new, has already become very popular. Its color is a peculiar shade of delicate, soft pink; the flowers are a good size, handsomely fringed, fragrant, on long stems, and as a grower everything that can be desired. Wherever flowers of this variety have been placed on the market, they have commanded a ready sale at best prices. I predict for this carnation a long and useful career.

No. 5. *Tidal Wave*.—This is a deep rich pink, bordering on Magenta; it is a splendid grower and prolific bloomer, a most desirable and very popular variety.

No. 6. *Portia*.—As a scarlet carnation, this good old sort, and reliable standby, may still be regarded as unrivalled, and during the last few years its flowers have formed a very large proportion of all the scarlet carnations sold in New York city. The freedom of production, brilliancy of color, and the uniform health and vigor of the plant, has secured for this variety very extensive culture, and if its flower stems were a little more robust and its flowers a trifle larger, it would long remain a most obstinate rival to future introductions in this particular color.

No. 7. *President Garfield*.—As a companion scarlet to Portia, this variety may be regarded as a very successful second, and although somewhat late, seems to come in just at the nick of time, when its fine, large.

deep, rich scarlet flowers are most desirable, and when Portia and many other sorts are taking a rest after their fall and winter efforts. The flowers of President Garfield, have for some years formed quite an important feature on the New York flower market.

No. 8. *Ferdinand Mangold*.—A good crimson carnation, has long been regarded as a very important factor on the flower mart, and there are fewer of this shade that may be considered as really good than in most other colors. This variety is a deep, rich, velvety crimson, the flowers are of good size, excellent form, and handsomely poised on moderately strong erect flower stems, and seem to fill the bill in a graceful and efficient manner.

No. 9. *J. J. Harrison*.—This programme would be far from complete without one or two of the many handsome variegated varieties, as they also have their place and seem to increase in popularity as the years roll by ; to be of greatest value the variations however must be chaste and delicate and the colors of such tints as would be esteemed in self-colored flowers, and this variety is regarded with more than ordinary favor in consequence of a combination of many good qualities rarely met in one flower.

No. 10. *American Flag*.—As a variegated companion to the last, this is an interesting and very attractive sort, and has become immensely popular in a comparatively short time. It is a sport from the well known Portia, and is even more vigorous and a better grower than its parent. Present indications would seem to point to largely increased popularity for this beautiful carnation.

No. 11. *Golden Gate*.—Yellow carnations, although not as much inquired for in the past as were the roses of the same color, are still a necessity, and form quite an important feature of the florist's stock in trade, and a marked and noticeable increase in the demand has followed the advent of the very superior varieties of this color now in cultivation. This variety is a rich, clean yellow, possessing many excellent qualities, and has met with remarkable favor during its brief career. I predict that its popularity will increase.

No. 12. *Buttercup*.—I have thought it well to end my list with this magnificent carnation, every perfect flower of which is a golden crown fringed with pink and carmine. I have often thought if necessity compelled me to grow but one carnation, that Buttercup would be my choice ; it has always appeared to me as the very acme of perfection, and the crowning triumph of an enthusiastic carnation specialist, and in my imagination has always formed a golden halo around the name of our departed friend, Charles T. Star of Avondale.

Mr. R. T. LOMBARD, of Wayland, Mass., responding to the call of the Chair for an additional response, said that he presumed he was

talking to people who knew something about the carnation, so he did not propose to give them a history of the plant. In enumerating twelve varieties as the best for general commercial purposes, he did not consider it proper to include in the list those sent out the past winter for the first time. He would give a list of such varieties as had already had an extended treatment in different soils and varied conditions, and had in the experience of men in different parts of the country, proved their value for general cultivation. The requisites of a first-class carnation he stated to be: first, health and vigor of plant; second, early and continual blooming; third, large, well-formed flowers; fourth, strong calyx, without any tendency to burst; fifth, long, stout stem; sixth, ease of propagation. While the plants on his list did not all possess every one of these qualities, yet every one had some of them. The ideal carnation had not yet appeared. His list was

*White*.—Silver Spray, Mrs. Fisher, Lizzie McGowan.

*Pink*.—Grace Wilder, Tidal Wave.

*Scarlet*.—Hector, Portia.

*Crimson*.—Ferdinand Mangold, Anna Webb.

*Yellow*.—Buttercup.

*Salmon Pink*.—Mrs. Ferdinand Mangold.

*Variegated*.—J. J. Harrison.

He said that there was a strong probability that Puritan would supplant Silver Spray, and take the head of the list in white; that Golden Triumph would take the place of Buttercup; Aurora that of Grace Wilder and Tidal Wave, and that Daybreak would come into great public favor; but they had yet to be tested. He was fully aware that Lizzie McGowan and Mrs. Fisher had strong advocates in certain localities, but for general cultivation there had been no white sold that had taken the place of Silver Spray, which in his opinion, was entitled to the head of the list, though he did not grow a plant of it. [Applause.]

The PRESIDENT announced as question number two, the following: "What are the Best Twelve Hybrid Roses for Bedding Purposes?"

Mr. JOHN SAUL, of Washington, D. C., responded: He prefaced his list by stating that this class of roses was a very mixed one, and came into existence about fifty years ago. The first hybrid perpetual, as far as he could remember, was the old Bourbon rose. That crossed with the Gallicas, Hybrid Chinas, and other roses of the time, was the starting point of the hybrid perpetuals. The earlier varieties raised, such as William Dewar, Prince Alfred and others, partook more of the Hybrid China and Gallica than anything else, and as they came down these roses again were crossed largely with the Noisette, and latterly with the teas, so that at the present time the hybrid perpetual roses embraced some five or six classes. In his list there were six that bore



the closest resemblance to the hybrid China, and six that had more of the Noisette blood in them. Again, he had given six that were closely connected with the teas and some crossed with the mosses. He would give the names of twelve varieties that he thought were adapted to the north or cold climate. These were :—

Boule de Neige, Crimson Bedder, Earl of Dufferin, Lord Macaulay, Marchioness of Dufferin, Madame Gabriel Luizet, Marchioness of Lorne, Mrs. John Laing, Queen of Autumn, Silver Queen, Ulrich Brunner and Sir Rowland Hill, all hardy and free bloomers.

For the Middle or Southern States he preferred the hybrid teas. They were Augustine Guinoiseau, Denmark, Duchess of Albany, Countess of Pembroke, Distinction, Captain Christy, La France, Lady Helen Stewart, Lady Mary Fitzwilliam, Madame Oswald de Kerchove, Meteor, Queen of Bedders ; the last not strictly a hybrid tea. He thought Queen of Bedders one of the finest autumn blooming roses.

The PRESIDENT announced as question number three, the following : “ What are the Best Twelve Monthly or Everblooming Roses for Amateurs ? ”

Response by Mr. P. O'MARA,\* of Jersey City, N. J.

Mr. O'Mara's list was as follows : Hermosa, Agrippina, Perle des Jardins, Clothilde Soupert, Souv. de la Malmaison, The Bride, Sunset, Mad. Hoste, Catharine Mermet, Mrs. Degraw, Bon Silene, Mad. Pierre Guillot.

An additional response, prepared by Mr. E. G. HILL, of Richmond, Ind., was also read. It was as follows :—

Souv. de la Malmaison, Mrs. George Paul, Kron Princess Victoria, Clothilde Soupert, La France, Duchess of Albany, Gloria de Polyantha, Sombreuil, Mad. Welche, Meteor, Grace Darling, Agrippina.

The PRESIDENT announced as question number four the following : “ What are the Best Twelve Palms for Florists' Use ? ”

A response by Mr. JULIUS ROEHRS, of Carlton Hill, N. J., was read as follows :—

“ The Best Twelve Palms for Florists' Use ” are, *Latania borbonica*, *Kentia Belmoreana*, *Kentia Forsteriana*, *Areca lutescens*, *Corypha Australis*, *Phœnix tenuis*, *Phœnix rupicola*, *Chamærops excelsa*, *Raphis flabelliformis*, *Areca Baurei*, *Seaforthia elegans*, *Cocos Weddeliana*.

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\*NOTE.—The paper of Mr. O'Mara, in the absence of that gentleman, and the written responses of other gentlemen not present at the evening session, were read by Mr. Wm. McRoberts, of Baltimore, who kindly consented to assist Secretary Stewart in this particular.

An additional response by Mr. WM. S. CLARK, of Washington, D. C., was also read. It was as follows :—

I have been asked to give the names of the best twelve palms for florists' use. According to my ideas, I would divide them into two lots; the first six, namely : *Latania borbonica*, *Areca lutescens*, *Kentia Belmoreana*, *Kentia Forsteriana*, *Cocos Weddeliana* and *Phœnix reclinata*, are of quick growth, stand well as house plants, and the seed or small plants can be easily obtained at very reasonable rates.

The second six, namely : *Phœnix rupicola*, *Chamærops tomentosa*, *Raphis flabelliformis*, or *R. humilis*, *Corypha Australis*, *Cocos plumosa*, and *Sabal umbraculifera*, are much slower to get up ; in fact, it takes nearly twice the time to get them in the same saleable condition as the first six ; therefore, they can't be sold at a profit for the same prices, but after they attain a decorative size they are extremely valuable, and the amount of wear and tear they will stand is simply wonderful. I suppose, strictly speaking, *Cycas revoluta* is not a palm; but to the general public it is the Sago Palm, and I would like to offer it as the one to make the baker's dozen.

The PRESIDENT announced as question number five, the following : " What are the Best Twelve Ferns for Florists' Use ? "

The response by Mr. J. D. EISELE, of Philadelphia, was read as follows :—

In answering this question, I take it for granted that it refers to such varieties as are suitable for use in filling fern-dishes and other similar work, and limit my list to such varieties as can be procured in quantity. I would place at the head *Adiantum cuneatum*, which but a few years since was used almost exclusively, but is now used proportionately less considering the enormous increase in the demand for other hardier varieties. *Davallia tenuifolia stricta*, one of the most useful and graceful varieties in cultivation, thought not strictly an evergreen, may be kept in good condition always by growing it in a high temperature, say 65 to 70 degrees. For the balance of the twelve I would specially recommend *Cyrtomium falcatum*, *Lastrea aristata variegata*, *Lastrea opaca*, *Nephrolepis exaltata*, *Onychium Japonicum*, *Polystichium capense*, *Pteris cretica albo lineata*, *Pteris palmata*, *Pteris serrulata* and its many crested forms, and *Pteris tremula*.

Many others, such as *Onychium auratum*, *Pteris nobilis* and *Pteris Victoria* would add materially to the diversity of the collection, but are yet too scarce to permit of their use in large quantities. The same holds good with that most beautiful of all ferns, *Adiantum Farleyense*.

The PRESIDENT announced as question number six, the following : " What are the Best Twelve Orchids for Florists' Use ? "

The response was made by Mr. WM. SCOTT, of Buffalo, N. Y., who read the following list : —

*Cattleya Mossiæ*, May ; *Cattleya Trianæ*, mid-winter ; *Cattleya Percivalliana*, late fall ; *Cattleya Gaskelliana*, spring ; *Dendrobium Wardianum*, winter and spring ; *Dendrobium nobile*, winter and spring ; *Dendrobium formosum giganteum*, fall ; *Cypripedium insigne*, mid-winter ; *Cypripedium Lawrenceanum*, winter ; *Cœlygne cristata*, March and April ; *Lælia autumnalis*, October and November ; *Oncidium tigrinum*, October and November.

Mr. Scott then said that his advice to small florists was to go into orchid growing heavily, if they went into it at all ; that is, to the extent of about \$2,000. He thought that, for them to realize any profit from orchids it was necessary that they should have a considerable stock on hand. If their stock was limited to a few dozen or a few hundreds, they would be more apt to suffer loss than to make a profit.

Mr. WM. MCROBERTS, of Baltimore : I would like to inquire of the gentleman from Buffalo, what is his objection to the *Lælia anceps* ?

Mr. SCOTT. The *Lælia anceps* is one of the most beautiful orchids that blooms. It blooms during the month of November, but it lasts scarcely four or five days. It is their durability that renders orchids valuable. In that view I cannot recommend *Lælia anceps*, as it looks beautiful today and in three days is gone.

Mr. MCROBERTS. I have been engaged in orchid growing for a number of years and I have yet to find any difficulty in keeping *Lælia anceps*, not merely for three days but for a week or two weeks. It is an orchid of beautiful color, with long stem, is easily grown and is just as profitable as any.

With regard to the growing of orchids in quantity I have this to say. It is just as unprofitable to grow orchids in a small quantity as it is to grow a small quantity of anything else. You can find a market for a large quantity of any product more readily than for a small quantity, and this is as true of orchids as of anything. A few orchids may answer well enough where but a few roses or a few of anything else suffices to meet the demand.

Mr. JOHN SPALDING, of New London, Conn., in reply to Mr. Scott's advice to small growers, said that he differed with that gentleman and that his own recommendation to small florists, if that term might be used, was to grow orchids, if only a few, for the prestige of the thing and not merely to make money by it. He continued : It is a source of gratification to the small florist to have something that is worth showing to a lady customer. She will say, "I am so pleased to see an orchid ; that is just what I want to see." For my own part, I do not take into

account the money I make out of orchids but I find it profitable to have them on hand as something with which to interest parties who come into my place. I think it will be an advantage to the small florist to grow even a few orchids, whether he makes money out of them or not. It may not be profitable at first but I can assure you there will be a profit in the long run. [Applause.]

The PRESIDENT announced as question number seven, the following: "What are the Best Twelve Hardy Herbaceous Plants for Cut Flower Purposes?"

A list prepared by Mr. J. WOODWARD MANNING, of Reading, Mass., was read as follows:—

Astilbe (*Spiræa*) Japonica, var., grandiflora; Gaillardias, best hybrid forms, for flower decorations; Pæonies, in self colors, both single and double sorts; Hybrid pyrethrums, both single and double varieties; *Iberis sempervirens* and *Iberis tenoriana*; *Achillea* "The Pearl;" *Anemone Japonica* and varieties; *Coreopsis lanceolata*, *Euphorbia corrolata*, *Gypsophila paniculata*, *Rudbeckia speciosa*, *Lathyrus latifolius*, var. albus.

Adjourned.

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### THIRD DAY — MORNING.

The Convention reassembled at 10.30 o'clock A. M.; President DEAN in the Chair.

#### ELECTION OF OFFICERS.

The first business in order was the election of officers.

Secretary STEWART, on motion of Mr. C. W. HOITT, of Nashua, N. H., was instructed to cast the ballot of the Society for the only nominee for the office of President, Mr. WM. R. SMITH, of Washington, D. C.

The ballot was cast accordingly.

President-elect SMITH appeared upon the platform, when the Convention, upon the suggestion of Mr. M. H. NORTON, of Boston, Mass., indulged in a round of cheers in honor of Mr. Smith's election.

President-elect SMITH responded as follows: I feel like exclaiming, with "Holy Willie," "What was I or my generation that I should get sic exaltation" as this? In electing me as your President, you have conferred upon me the highest earthly honor. I have only to say that

this Society has had a warm corner in my heart ever since its inception. I regard the promotion of its objects as the noblest work in which men can be engaged. The results which it seeks are grand and edifying. There is no more enviable occupation, in my mind, than that of the industrious, hard-working, earnest florist; and for my part I would rather be your president than to be elected president of the United States. I say this in all candor and sincerity.

This is the rounding up of an old man's career; for according to recent statement I am seventy-two years of age, though really I have not quite reached that mark. I thank you from the bottom of my heart for the great honor you have done me, and I hope to be able with your assistance to aid in making the coming year a steadily progressive one. [Applause.]

The remaining nominees were then severally chosen, and their unanimous election announced, as follows:—

On motion of Mr. J. M. JORDAN, of St. Louis, Mo., the ballot of the Society was cast by Secretary Stewart for Professor WM. TRELEASE, of St. Louis, for Vice-President.

On motion of Mr. C. W. HOITT, of Nashua, N. H., the ballot of the Society was cast by Mr. E. A. Wood, of West Newton, Mass., for WM. J. STEWART, of Boston, Mass., for Secretary.

On motion of Mr. M. H. NORTON, of Boston, the ballot of the Society was cast by Secretary Stewart for MYRON A. HUNT, of Terre Haute, Ind., for Treasurer.

#### REVIEW OF NEW PLANTS.

The regular business of the session being proceeded with, a "Review of New Plants," by Mr. WM. FALCONER, of Glen Cove, N. Y., came next in order.

Mr. FALCONER prefaced the review as follows:—

In this report I have adopted the same method that I did in my report on new plants last year, namely, to call to my aid some of the foremost florists and horticulturists in the land and let them give what they consider to be the new plants in their business. To confine ourselves to strictly new species or varieties of plants would be too arbitrary and in many cases misleading, besides, no one man could do this of his own experience. But with the aid of the Kew Bulletins, Garden Almanack, Garden Oracle, the European garden weeklies, our own American horticultural press and the mass of catalogues of florists and seedsmen, it would have been an easy matter for us to compile a huge list of "new" plants, but for our purpose what would be the use of it? I have got all of these books and papers, and could easily have gotten up such a com-

pilation if I wanted to, but I don't believe such a list would have been to your profit. - I concluded to get for you the opinions of persons qualified by practical acquaintance with the plants they mention to tell you about them.

In answer to my application to several eminent firms and individuals for information regarding the worthy new plants that had recently come under their hands or observation, not a few have merely mailed me their catalogues, some marked and some unmarked, but I could not avail myself of this information. The reports here presented by my correspondents are original matter.

In some cases the same plants may be referred to by two parties, and in one or two instances plants that were mentioned last year are again referred to, but this repetition is limited enough to be admissible, indeed it is well, now and again, to get the opinion of more than one expert about a new plant.

It will also be noticed that some of the plants referred to are quite old in cultivation, although they happen to be new in the trade of the person mentioning them, or for certain purposes in the trade. In justification of this we must also take into consideration the many young members in our Society to whom these plants may be perfectly new ; it is unfair to expect that this paper should be so severely " new " as to be food only for the intensely old or advanced in floriculture.

We have here contributions from twenty-seven different parties, and covering a wide range of subjects. Ernst Asmus, Antoine Wintzer, J. N. May and W. H. Spooner have written about roses ; Fred. Dorner and Edwin Lonsdale about carnations and chrysanthemums ; E. D. Sturtevant and Wm. Tricker about aquatics ; Wm. Robinson and Pitcher & Manda about orchids ; hardy plants by Robert Lindsay and T. S. Ware ; annuals by W. Atlee Burpee, Denys Zirngiebel and Wm. Thompson ; bulbs by Max. Leichtlin ; trees and shrubs by Jackson Dawson and T. R. Trumpey ; miscellaneous plants by Peter Henderson & Co., Henry A. Dreer, John Saul, V. Lemoine, Backhouse & Son, A. Blanc and others, and a valuable paper on the awards of the Massachusetts Horticultural Society by the Secretary, Mr. Robert Manning.

(Mr. Falconer at this point suggested that the reading of the review prepared by him be dispensed with, and that the same be published in the official report of the proceedings.)

On motion of Mr. J. N. MAY, the suggestion was complied with and it was ordered the report be spread upon the minutes. It is here inserted, and is as follows :—

#### ORCHIDS.

BY WM. ROBINSON, NORTH EASTON, MASS.

*Cypripedium aphrodite*.— A hybrid between *C. Lawrenceanum*, and *C. niveum*, and is no doubt the handsomest of the *Marshallianum* group. Though raised in 1887, it is yet scarce.

*Cypripedium aylinzi* is another hybrid raised between *niveum* and *ciliolare*, though not so fine as the preceding, is very pretty ; it partakes more after *niveum*, flowering in summer.

*Cypripedium astræ*, is a charming hybrid. I would imagine it to be a cross between *C. lævigatum* and *Spicerianum* ; a beautiful form, flowering in summer, and lasting long in perfection.

*Cypripedium macrochilum* is a marvel hybrid raised at Chelsea, between *Uropedium Lindeni* and *Cypripedium roezlei*. As the name implies, it is notable for the large size of its lip. It agrees more with the pollen parent than the other, but is larger. The upper sepal is yellow with green veins. The petals are pendulous, seven to eight inches long ; yellow at the base and pale rose the rest of the length. The long pouch is suffused with soft rose on straw-yellow ground. Flowers in midsummer, and lasts a long time in perfection.

*Cypripedium Youngianum* is a hybrid between *C. lævigatum* and *C. superbiens*. This handsome hybrid seems to improve each year. In my opinion, it is as good as *C. Morgania*.

*Cypripedium voluteanum* is far ahead of *Hookeræ* ; and since it has become established this superiority is still more pronounced.

*Cypripedium nitidissima* is a fine hybrid of good constitution, raised between *C. caudatum* and *C. conchiferum*.

*Cypripedium McFarlanei*, another very pretty hybrid between *C. calophyllum* and *C. Spicerianum*.

*Cypripedium insigne Amesiana*.—A variety named by Messrs. Pitcher & Manda, for Mr. F. L. Ames, is a distinct unspotted form.

*Cypripedium insigne Macfarlanei*.—Named after Mr. McFarlane, the artist, is also an unspotted form in the way of *Amesiana*.

*Cypripedium insigne Greavesiana*.—A beautiful form, and has large sized flowers. The dorsal sepal resembling the spotting on a partridge. Named for Thomas Greaves, gardener to E. W. Gilmore, North Easton.

*Cattleya labiata autumnalis*.—Though not a new plant, flowers from September to January, and is of fine form and color, and lasts a long time in perfection. Its re-introduction in large quantity lately allows everyone to secure it.

*Cattleya rex*.—A beautiful species, introduced by M. Linden. In habit it resembles *C. aurea* ; flowers of good form ; sepals and petals white ; lip beautifully fringed, and reddish pink in front portion. The rest of the lip yellow with pink veining.

*Cattleya O'Brieni*.—A beautiful delicate pink ; formed in the way of *C. Loddigesii*, but dwarfer in habit, and flowering in the autumn.

*Dendrobium venus* is a charming hybrid raised between *D. nobile* and *D. Falconeri*, with large flowers freely produced and which last well on the plant. Blooms in March and April.

*Dendrobium atrovioleaceum* is a beautiful evergreen species flower-

ing in early spring. The spikes being produced from top of bulb. The sepals and petals are pale yellow with violet spots. The lips pale yellow found deeply suffused with violet; lasts a long time in perfection.

*Dendrobium Bleichroderianum* is an evergreen species of the *D. macrophyllum Veitchi* type, and which it much resembles. The plant is robust. The flower spike is produced from top of stem; erect, and carrying about fourteen flowers, each over two inches across. The whole flower is of a pale greenish yellow, spotted, and hairy at the back. The lip is three-lobed with deep purple lines. It blooms in summer, and lasts several months in perfection.

*Dendrobium Cassiope*.—A pretty hybrid raised between *D. nobile albiflorum* and *D. endocharis*. Of good habit, free flowering and very sweet.

*Dendrobium phalænopsis Schroderianum*.—This grand orchid is the best introduction of '91. The shades of color varying from light pink to rich purple, and presumably white. It is of comparatively easy culture and free flowering, and lasts long in perfection. The flowering season is late summer to early spring.

*Lalia grandis tenebrosa*.—This fine variety of *grandis* has been recently introduced. The sepals and petals are dark, bronzy purple; lip very large, having an intensely deep purple maroon throat. Flowers in June and July.

*Lalia cattleya pallas*.—A hybrid raised between *C. Dowiana* and *Lælia crispa*. The sepals are of a soft lilac; the petals are broader and darker. The lip takes after *C. Dowiana* in its large size and rich purple lammæ. Autumn flowering.

*Lalia Arnoldiana*.—A hybrid raised between *Lælia purpurata* and *Cattleya Warneri*.

*Lælia cattleya marriotiana*.—A hybrid between *Lælia flava* and *Cattleya Skinneri*, is of intermediate habit.

*Odontoglossum Robinsonium*.—A natural hybrid with branching spikes. Color of flowers yellowish ground with dull brown marking. It is very distinct in color. Was sent out by Sander & Co., and named in honor of Mr. Robinson, of North Easton, Mass.

*Miltonia Amesiana vexillaria* var.—The finest varieties we have got yet. The flowers are large, and light pink; the petals are deeply suffused with red. The lip measuring three and one-half inches across; at its base is a deep maroon blotch with fine radiating lines. After the way of *Miltonia vexellaria superba*, but is much larger in every way, and more beautiful. It flowers in April, while *superba* flowers in summer. It was named in compliment to Mr. F. L. Ames, of North Easton.

*Miltonia vexillaria fairy queen* is a pure white flower, with a delicate lemon crest.

*Masdevallia Measuresiana* is a hybrid between *M. towarensis* and *M. amabilis*. The flowers have a white ground slightly suffused with violet.



*Masdevallia Schroderiana*.—A dwarf species. The flowers rise well above the foliage. The upper half of the sepals is of rich wine color, basal half a creamy white. Blooms in mid-winter, and lasts a long time in perfection.

*Rodriguezia Lindenii*.—A beautiful species with long racemes of snow-white flowers. Introduced by Linden as Burlington; flowers in autumn.

*Sobralia Lowii*.—A dwarf form, with deep purple flowers produced in winter. Although it is very showy when in bloom, its flowers do not last long.

*Cochliodia Næzliana* is a cool house, autumn-blooming orchid, with spikes of orange scarlet flowers.

#### NEW ORCHIDS.

BY FITCHER & MANDA, SHORT HILLS, N. J.

*Cypripedium Pallens* (*C. Spicerianum* and *C. Dayanum*).—Leaves short, rather broad, light green with fine tassellation, short stem; flower large; dorsal sepal recurved, white with green veins, lower sepal small, pale green; petals green, spotted and shaded with purple; lip large and shaded with purple; staminode pale lilac.

*Cypripedium luridum* (*C. Lawrenceanum* and *C. Villosum superbum*).—Leaves large, rather broad yellowish green, beautifully tassellated with darker green; stem ten to twelve inches high, dark brown. Flower very large and bold; the dorsal sepal large, recurved, yellowish green, veined with brown. Lower sepal large, yellowish green. Petals and lip yellowish green shaded with brown.

*Cypripedium Greyanum* (*C. Druryii* and *C. ciliolare*).—This beautiful and distinct hybrid was obtained by crossing *C. Druryii* with the pollen of *C. ciliolare*. Leaves rather short, thick, dark green tassellated with a darker green; four to six inches long by one and a half inches wide. Stem ten to twelve inches long, dark and hairy. Flower large, well proportioned; dorsal sepal nearly flat and pointed at the top; ground color pale yellow tinged with green, with a broad, dark vinous purple line through the middle, and delicately veined and shaded with a similar color, and having a few spots at the base. Petals broad, nearly six inches from tip to tip, prominently marked with a broad stripe of reddish purple through the middle, and thickly spotted at the base with small brown purple spots, and continuing into fine veins to the end of the petals, which are beautifully tinged with pink. Lip large, of a yellowish green cast, shaded with light brown, and finely dotted in the upper portion.

*Cypripedium insigne Gravesianum*.—Distinguishing itself from the type by its much stronger growth and large flower on a tall stem. Flower the shape of *C. insigne maximum*, with a broad white margin around the dorsal sepal, on which are large brown spots running upwards in

regular lines, and bunch of smaller spots on the sides of the lower part of the dorsal sepal. This beautiful variety is named after Henry Graves, Esq., of Highland Avenue, New Jersey.

*Cypripedium insigne Boiesianum*. — Flower shape and size of *C. insigne* Maulei; the dorsal sepal being spotted all over, save the white margin, with dark brown spots in the regular lines. Petals and lip greenish yellow, shaded with brown. Named in compliment of Col. H. M. Boies, of Scranton, Pennsylvania.

*Cypripedium insigne Barrii*. — Flower shape and size of *C. insigne* Nilsonii, with white margin and few brown purple spots at the top; the other part of the dorsal sepal being thickly covered with small dark brown spots running in regular and irregular lines. Petals and lip yellowish green, shaded with dark brown. Named after Wm. Barr, Esq., Llewellyn Park, Orange, New Jersey.

*Cypripedium insigne McFaddenii*. — Very distinct type of *C. insigne*, much resembling *C. insigne* Amesianum, having broad dorsal sepal with wide margin; the lower part is beautifully shaded with and covered with minute brown spots, running in regular lines. Petals and lip yellowish green, slightly shaded with brown. This distinct variety is named after the late F. T. McFadden, Esq., of Cincinnati, Ohio.

*Cypripedium insigne Savageanum*. — Flower shape of *C. Chantini* but much larger, having a broad white margin in the dorsal sepal, which is thickly spotted with large brown spots. Petals and lip green shaded with brown. This fine variety is named in compliment of Geo. Savage, gardener to W. S. Kimball, Esq., of Rochester, N. Y.

*Cypripedium insigne Wrightianum*. — Distinct variety having stronger growth, and the large bold flower which is of *C. insigne* Coulsonii type. The dorsal sepal is large and long, having a very broad white margin; the lower part is covered with large brown spots running in irregular lines. Petals broad, standing out, yellowish green slightly shaded with brown. Lip large, green, shaded brown. Named after J. Hood Wright, Esq., of Fort Washington, N. Y.

*Cypripedium insigne Robinsonianum*. — Very distinct type of *C. insigne*, having flower the shape and size of *C. insigne* Maulei. The dorsal sepal has a shade of pink on the boundary of the white margin and the spotted portion, which is very distinct. This beautiful variety is named in compliment of Wm. Robinson, gardener to F. L. Ames, Esq., of North Easton, Mass.

*Cypripedium Amesianum grandiflorum*. — This great improvement on the type was raised by crossing *C. villosum giganteum* with the pollen of *C. venustum*. It differs from the type by its large dorsal sepal, large petals and lip. The growth also differs, being large, with shorter but much broader leaves.

*Cypripedium Amesianum atratum*. — Differs from the type by its short and broad leaves, also the flower which is very large. The lower

part of the dorsal sepal is very dark brown, the petals very broad, much spotted at the base and a dark brown line through the middle. Lip large, heavily veined with dark brown.

*Cypripedium vernixium atratum*. — This very distinct variety differs from the type by its broader and shorter leaves, longer stem and large flower; the dorsal sepal is mottled and lined with brown purple; petals also spotted all over with the same color. Lip same as the type.

*Cypripedium Leeantum aureum*. — This beautiful and distinct variety of *Leeantum* was raised by crossing *C. insigne aureum* with the pollen of *C. Spicerianum*. Leaves much shorter and narrower than the type, pointed. Flower medium size and well formed; the dorsal sepal yellow at the base, with a light purple line through the middle and a few spots on the sides; petals yellowish, slightly shaded and spotted; lip also yellowish, slightly shaded.

*Cypripedium Leeantum incurvum*. — Distinct type of *Leeantum*; distinguishes itself by its dorsal sepal which is much spotted and incurved, instead of recurved at the lower part. Lip is also distinct from the type, being pinkish and shaded with brown. Petals same as the type.

*Cattleya Gravesiana*. — Bulb long and narrow, smooth and of a yellowish color. Leaves oblong, pointed and standing up straight. Flower very large, nine inches or more in diameter, well proportioned; petals and sepals of a deep rosy color, lip broad, fringed and flat; lower portion of a soft rose with deep purple veins; the upper part of the expanded lip has two large blotches of a rich orange yellow color which continues right through the throat, giving the flower a most unique appearance, which judging by the bulb, growth and flower suggest an intermediate form between *C. speciosissima* and *C. Mossiæ*.

#### AQUATICS.

BY WILLIAM TRICKER, DONGAN HILLS, STATEN ISLAND, N. Y.

Among aquatics nothing has gained so much in public favor as those of French origin, and deservedly so. Indeed, there has not been sufficient stock in the trade to supply the demand.

Among them are *Nymphaea Marliaceæ albida*, which is one of the very best of white flowers, after the style of *N. alba*. The flowers are large and a pure dazzling white color, and fragrant.

*Nymphaea Marliaceæ carnea* is similar to the preceding except in color, which is of a lovely shade of pink, — the lightest colored of pink pond lilies. The reverse of the leaf is reddish.

*Nymphaea Marliaceæ rosea* resembles *carnea*, with the exception that the color of the flower is much deeper. The leaves also are more deeply colored on the underside.

*Nymphaea odorata sulphurea* is one of the very best new lilies. The large cup-shaped flowers stand up above the water like a lotus. The color is more of a canary yellow than sulphur, with deep yellow stamens;

the petals are somewhat narrower than those of *N. chromatella* and of less substance. It is very free blooming, and its flowers have the fragrance of the of *N. odorata*. The leaves are deep green heavily blotched with reddish brown.

*Nymphœa odorata exquisita* is the deepest colored of all the hardy nymphœas. Flowers large and of a rich rose carmine color, with delicious fragrance. The leaves are green on surface, reverse intense red. It has not equalled the other varieties in growth, being rather slow.

*Nymphœa odorata*.—Southern variety, found growing in the rice fields, is presumably the same as *Nymphœa odorata gigantea*. It is superior to the Eastern *Nymphœa odorata*, being a stronger grower, and it has larger flowers, six inches in diameter, and the petals are wider and more numerous.

*Nymphœa odorata Caroliniensis*, (Bahnsen's variety), is a very large, full flower, with a suffusion of pink. So far, however, it has not produced such a deep shade of pink with us as is found in the wild plant in North Carolina. But I find a great variation in the tints in the flowers of *N. odorata rosea*; the flowers are much lighter as the season advances, and I am inclined to think that the sun's duration and strength bleaches the flowers. This may or may not be the cause however; in fact the trouble may be local. It is nevertheless a magnificent flower and a great acquisition.

*Nymphœa pygmaea helvola* is deserving of special mention, being admirably adapted for the aquarium and small basins and tubs. It is a free-growing plant, no larger than the type, but an abundant bloomer, and the flowers a trifle larger,—three and a half inches diameter; petals more pointed, and sulphur-yellow. The leaves are deep green, blotched with reddish brown.

*N. Mexicana* still maintains its superiority over *N. flava*, but as it is not quite hardy it must eventually give place to its now more popular rival, *N. sulphurea*, which has larger flowers and is sturdier and quite hardy. Its flowers are also fragrant, though not of so good a color.

*N. Laydekeri rosea* is another hybrid of the *N. pygmaea* type. The plant is a stronger grower and the flowers are larger. It is one of our best additions to this class of plants. The flowers on opening are a delicate pink with deep golden centre; the second day the petals are many shades deeper, the sepals retaining their whiteness. The outer stamens are rich yellow, while the centre is orange, a very pleasing combination; the third day flowers assumed a deep rose color. The plant is a free grower and profuse bloomer. It frequently has all the different flowers in the different stages at one time which presents a novel feature, as it would appear that the one plant produced several different colored flowers.

## AQUATICS.

BY EDMUND D. STURTEVANT, BORDENTOWN, N. J.

Besides the aquatics mentioned last year, the following new varieties are fast becoming popular : —

*Nymphæa Marliaceæ albida*.— This plant belongs to the same class as *N. candidissima*, with flowers of a more pearly whiteness, and somewhat less stiff in form. It is hardy and free blooming.

*Nymphæa odorata sulphurea* is a hybrid between *N. odorata* and *N. flava*. The flowers have the form and fragrance of *N. odorata*, with a light yellow color slightly deeper than *N. M. chromatella*. They stand out of the water a few inches. The plant is hardy and free blooming.

*Nymphæa odorata exquisita* is a new variety, resembles *N. odorata rosea* in all respects except in color, which is a deeper shade of rose.

*Nymphæa pygmæa helvola* is a cross between *N. pygmæa* and *N. flava*. The flowers are larger than those of *N. pygmæa*, and of a very pale yellow color.

*Nymphæa Laydeckeri rosea* is the very latest introduction. It is a hybrid between *N. pygmæa* as the seed parent, and some rose-colored species (possibly the Swedish Pink Water Lily) as the pollen parent. The flowers are twice the size of those of *N. pygmæa*; pale pink on first opening, changing the second and third days to deep rose color. It is a gem of the first water for amateur collections.

*Cabomba Carolinensis* is not new, being a native of the South. It is a submerged plant with delicately divided rich green, very ornamental foliage. It has proved to be the very best plant known for keeping in aquariums with gold fish. The fish will always remain healthy so long as the plant is kept flourishing.

## AMERICAN NEW ROSES.

BY ANTOINE WINTZER, WEST GROVE, PA.

*Marion Dinglee*.— This one of the best new tea roses. Flowers large and full; color bright crimson, produces beautiful buds; foliage healthy and strong. A very profuse bloomer.

*Golden Gate*.— Flowers large and full; buds very large and well formed; color creamy white, beautifully tinged with golden yellow; petals often marked with clear rose. One of the most promising varieties.

*Pearl Rivers*.— Flowers large, quite full, buds often of fine peachy red; the petals are delicately shaded and bordered with clear rose; flowers very fragrant.

*The Queen*.— Flowers very large; color pure white, fine in bud and one of the best to retain its color in open ground. Highly esteemed in England, where it has been awarded several medals; very satisfactory for general purposes.

## NEW FRENCH ROSES.

*Madame Victor Caillet* (Tea). — Flowers large, fine and of regular form; moderately double; color bright rosy pink, shaded with salmon and coppery red. Distinct and promising.

*Etoile Polaire* (Tea). — Color delicate shade of salmon pink, faintly colored with red and canary yellow. Quite promising.

*Madame la General Gurko* (Tea). — Color soft reddish pink, passing to buff and China rose; quite double; plant a strong, vigorous grower.

*Grand Duchesse Hilda de Bade* (Tea). — Color rich creamy white; base of petals faintly tinged with pure golden yellow. A neat compact grower and free bloomer.

*Grand Duc. Guillaume de Luxembourg* (Tea). — Flowers large and double, well formed petals of great substance; color clear salmon rose, reverse of petals delicate peach; produces fine buds.

*Madame Louis Patry* (Tea). — Plant robust and healthy grower; color creamy white, delicately shaded with rosy blush; quite double and very fragrant. Promising variety.

*H. Plantagenet* (Tea). — Plant a healthy robust grower; color beautiful China rose, shading to bright pink and carmine, produces beautiful buds almost free from thorns.

*Madame Bessonneau* (Tea) — Strong grower; flowers very large and full, sometimes globular; color rich apricot yellow, tinged with amber, outside of petals creamy white; very fragrant.

*Rosario Castel* (Tea). — Flowers quite full; color soft creamy white. rose-colored centre; plant a good grower.

*Elyse Heymann* (Tea). — Plant strong grower; color bright glowing pink, outside of petals golden yellow, sometimes shaded with saffron. rose.

*Monsieur Tillier* (Tea). — Flowers quite large; color carmine, passing to coppery red. Quite pretty and distinct.

*Augustine Halem* (Hybrid Tea). — Flowers quite large and full; color clear red verging to crimson. Habit of plant healthy; good substantial foliage, a constant and profuse bloomer, very fragrant.

*Baronne G. de Noirmont* (Hybrid Tea). — Flowers large and full, good substance, resembling the La France rose in formation of buds; color delicate shade of rosy pink, the reverse of petals satiny rose, very pretty.

*La Fraicheur* (Hybrid Tea). — Flowers large and well formed; color beautiful pearly white shaded to bright pink, darker towards the centre, reverse of petals carmine.

*Grand Duc. Adolphe de Luxembourg* (Hybrid Tea). — Flowers large and full; color bright glowing pink with a shade of coppery yellow. The reverse of petals salmon pink.

*Mad. Pernet Ducher* (Hybrid Tea).—Flowers moderately double ; color bright canary yellow ; outside petals light carmine shaded to creamy white, quite handsome and desirable.

*Lydia* (Hybrid Noisette).—Flowers medium size, finely formed, and borne in clusters, a very profuse bloomer ; color beautiful white shading to carnation pink in centre.

*Souvenir du Lieutenant Bujon* (Bourbon).—Flowers large and well formed ; color bright cherry red passing to rosy carmine, very fragrant.

*Monsieur Reve* (Hybrid Perpetual).—Plant a vigorous grower ; color salmon pink ; quite distinct in shade from most other roses ; flowers very large and double. Promises to be a free bloomer.

*Frere Marie Pierre* (Hybrid Perpetual).—Somewhat on the type of Baroness Rothschild ; flowers are produced singly on strong canes ; quite a free bloomer, and almost thornless ; color fine rose and pinkish red.

## ROSES.

BY J. N. MAY, SUMMIT, N. J.

*Elyse Heymann*.—Flesh colored rose, of the past season ; a strong grower, but of little value.

*Grand Duc. Guillaume de Luxembourg*.—Lemon yellow, very pretty, but too thin in petal to be of any good in our climate.

*Grand Duchesse Hilda de Bade*.—Of very little use.

*Madame Benoit Riviere*, similar to *Elyse Heymann*, of no material merit.

*Mademoiselle Genevive Gougon*.—Pale French white, flushed with rose color.

*Souvenir de Madame Antoine Loret*.—A strong grower, but poor bloomer.

*La Fraicheur*.—A variety which obtained high honors in France, but has certainly nothing of particular value for our use.

*Madame Pernet Ducher*.—This is a large, fine rose for summer blooming only.

*Gustav Regis* (Climber). — This is a very fine hybrid tea for summer blooming only.

*Madame Caroline Testout*. — Of last year's importation. Somewhat in the way of *Mme. Cusin*, and promises to be of value to us as a forcing rose. Color somewhat deeper than *Mme. Cusin*. Fine vigorous grower and very free bloomer.

*Oakmont*. — Hybrid perpetual of American origin, sent out this year. This will be a valuable rose for market purposes or for summer blooming, but is not suitable for forcing when other varieties can be had, though it will be of considerable value as an early variety. Color somewhat in the way of *Paul Neyron* ; very fragrant and very free bloomer ; nearly as large as the above named variety.

*F. B. Hayes*, (Hybrid China.) — This is a summer bedding rose. Will be invaluable, as it is very free blooming and of a bright, clear crimson color.

*Margaret Dickson*. — The finest of all white hybrid perpetual roses. It has taken more first premiums in England than any other variety in this class, and is regarded there as the best rose of recent introduction. With me it is a very fine grower and will make a very fine summer bedding rose. but of no use for forcing.

*Marchioness Dufferin*. — Another fine new rose of this year's introduction. In the way of Queen of Queens, but a much larger and fuller rose. This is a grand acquisition to us as a hardy summer bedding rose.

There are several other varieties of new French roses of last year's importation, but so far they have proven of very little value, in fact they might be classed as of no value to the American grower.

*Marion Dingee*. — A new American rose of this year's introduction. Promises to be of value for summer bedding only, as far as my experience has gone. It is of bright crimson clear color and very free bloomer.

*Golden Gate*. — An American rose of last year's introduction. Delicate yellow suffused with deeper yellow at the base of the petals. It would be very beautiful if it has a little more substance, as it is it is a little too thin to meet the requirement of a rose of the present day.

*Bridesmaid*. — Among one of the best introductions among tea roses for forcing purposes. A fine, clear, dark pink, the counterpart of Catherine Mermet in every particular excepting somewhat deeper in color, but not so deep as Waban, and it has not the bad habit the latter has of bursting its flowers and coming malformed.

*The Queen*. — One of last year's roses. It is a white sport of the old favorite variety Souvenir d' un Ami, but not as good a variety as that. The flowers are not very full but the petals are of a beautiful waxy white color. Having other much better white roses this one has never become a favorite.

*Henry M. Stanley*. — This rose and Pearl Rivers were introduced with Golden Gate, but none of them has proven of any special value except for summer bedding ; there they have found their place.

*Earl of Dufferin*. — I regard this hardy rose which was introduced a few years ago as the most valuable of the whole. It has large fine flowers of a brilliant crimson color, is very fragrant and a free bloomer, and it is as hardy as Jacqueminot.

*Salamander* (Hybrid Perpetual). — Bright crimson scarlet. As far as we can see it has no special merit over many others of the same class and color, although it is a very beautiful rose and quite fragrant.

*Medea* (Tea). — Flowers lemon yellow but too short in the petal to be of any value as a winter forcing rose, as a summer bedding rose however, it is very pretty.



## NEW ROSES.

BY MR. ERNST ASMUS, WEST HOBOKEN, N. J.

In France the very severe winter of 1890 and 1891 killed most of their roses ; consequently very few seedlings or new roses were sent out by French growers last fall. The few that I have tried this year, I can unfortunately, tell you very little about, as I was away down South for my health the time they were in bloom, and did not see much of them ; and my foreman omitted to make dates of those that did bloom. I shall therefore test them all over again the coming season. I will, however, let you have the benefit of what I did observe. Among the new teas the most promising are : —

*Medea*, in style of *Perles des Jardins* ; a little lighter in color, more cup-shaped, and very double. This ought to prove a good rose for the South, but for forcing under glass in our latitude, I think it is a little too double. The next best I think is

*Souvenir de Madame Antoine Loret*, (that is if the name doesn't kill it). It is a new shade among teas, being much like William Allen Richardson in color ; a shade of fine orange yellow ; small to medium in size, but rather too thin petals, having its flowers mostly single on stiff stems. A rather poor grower.

I have tried seven or eight other teas, but for reasons given above, can give no description of them. I hardly think, however, there is any thing good among them. As to hybrid teas, I rather think the raisers are improving on them, and I think two or three of them will turn out well another season.

*Kaiserin Augusta Victoria* (Hybrid Tea). — White, deliciously fragrant, the perfume resembling that of our wild magnolia ; grows and blooms freely ; the flowers are somewhat after the style of *Bride*. I think this will turn out to be a good rose.

*Augustine Halem* (Hybrid Tea).—A little lighter in color than *American Beauty* ; has medium sized flowers, and is a very free grower and bloomer, so far as I have seen it. I think this will make a good rose for small growers who want flowers of this color, and cannot get along with *American Beauty*, as it is a rank grower and continually in flower. Its flowers are a little larger than those of *Perles de Jardins*.

*La Fraicheur* (Hybrid Tea).—I have only seen one flower of this, but the color struck me as very fine, somewhat in the style of *Anna de Diesbach*. It is a little slow in growth. Shall give it a thorough trial next year.

I will now give you my experience with the two varieties I kept over for a second year's trial from last year, namely, *Souvenir de Pernet Perê* and *Mad. Carolina Testout*. The first named I found to my sorrow to be very fine in the fall ; thought sure I had struck something good, so bought all the stock I could get, only to find that it was good

for nothing in winter. But we all have to pay for our experience, and I think I am well paid in what I found in Mad. Carolina Testout. Here is a rose which I think is the best hybrid tea the French have sent out up to date. It is clear pink in color. There is nothing that I know of in the rose line that can approach it in color, and the flower is as large as a Baroness de Rothschild, and as free as a La France, and if my judgment is not mistaken, it will make a good sensation in the cut flower market when it is brought in in good shape.

#### HARDY ROSES.

BY WM. H. SPOONER, PRESIDENT MASSACHUSETTS HORTICULTURAL SOCIETY, JAMAICA PLAIN, MASS.

There is very little in the list of new garden roses that is worthy of special mention. The hybrid perpetuals now in cultivation are so good that it requires rare excellence to merit a competing place in the garden for the new-comers.

*Margaret Dickson*, with a gold medal attached to its name, and blazoned before the world by the nimble tongue as the greatest acquisition of modern roses, is, I fear, likely to be a little disappointing; for with me the plant has run to blind wood, under glass as well as in the open ground. The color of the flower is white, with pale flesh centre; very full, with petals of great substance, in the way of *Merveille de Lyon*, but larger. The plant is a very strong grower, much stronger than the last named rose, even stronger than *Her Majesty*; but like that much recommended rose, not a free bloomer. A few month's experience with plants grown under rapid propagation, however, is hardly a fair test of their best qualities.

*Marchioness of Dufferin*, another gold medal seedling of Dickson's; in color a beautiful rosy pink. Like most of this strain, the foliage is fine, the growth strong, the plant a free bloomer, almost as free as *Jennie Dickson*. It bids fair to become an acquisition for the garden, and with its fine color a forcing rose.

#### CARNATIONS.

BY FRED DORNER, LAFAYETTE, IND.

We grew fifteen hundred seedlings in 1890; these we have weeded down to ten. Of the two thousand seedlings of 1891 we have one hundred and twenty-five on trial again this year. I notice a marked improvement in these carnations from year to year.

The following are the selected ten from among fifteen hundred raised in 1890:—

*Blanche*.—Flowers pure white, medium to large, fringed; petals loose, standing erect in middle. Free blooming; growth vigorous, habit branching, foliage pale green. Calyx never bursts.

*Dr. Smart*.—Pinkish cream color striped with crimson; flowers

medium to large, and mostly one on a stout stem twelve to fifteen inches long, and of excellent keeping qualities. Plants dwarf but vigorous.

*Madame Diaz Albertini*.— Flower very large ; flesh pink, strong clove fragrance ; keeps well ; calyx cup shaped, and the points pressing against the petals, and in this way stiffening them. Strong growing ; free blooming and during the whole season.

*Mrs. Elizabeth Reynolds*.— Flowers bright clear pink, very large, delightfully fragrant ; they also open early, and keep growing larger for three or four days after they open. Plant vigorous ; foliage heavy.

*Purdue*.— Flower deep pink, even brilliant by gaslight ; large, globular, and excellent keepers.

*Richmond*.— Flowers brilliant carmine, unusually large, of fine build and fringed, and they keep well. A very vigorous grower, and has stout, stiff, long stems.

*Spartan*.— Flowers brilliant carmine shaded with scarlet, very large and full, and borne, mostly singly, on strong stems twelve to fifteen inches long. Of rather dwarf but vigorous habit ; foliage long and of grassy appearance.

*Western Pride*.— Flowers white striped with bright scarlet ; medium to large, and calyx never bursts. A dwarfish very free blooming variety with stout stems.

*Wabash*.— Brilliant crimson, medium to large ; never bursting, and of fine build. Growth very strong ; foliage heavy, tendency free blooming ; stems strong, branching, need disbudding ; requires staking.

*Wm. Scott*.— Flowers of a Grace Wilder pink color ; large, non-bursting, and capital keepers. Growth vigorous but not rank ; tendency very free blooming and from early to late.

*Chrysanthemum Esther*.— This is a beauty, and the best of any recent seedlings. The color of the flower is a clear, delicate flesh pink without a trace of purple ; the blossoms are very large, incurved and full to the centre.

#### NEW CARNATIONS.

BY EDWIN LONSDALE, PRESIDENT OF THE AMERICAN CARNATION SOCIETY.

The best carnations that I saw exhibited last spring, were :—

*Golden Triumph*. — Yellow, striped red.

*Grace Darling*. — Wilder pink, a little darker perhaps.

*Edna Craig*. — Light pink.

*Mrs. Wm. Colflesh*. — Bright pink.

*Grace Battles*. — Delicate pink.

*Pearl*. — White, shaded with pink.

*Orange Blossoms*. — White, base of petals salmon.

*Salmon Queen*. — Salmon pink.

*Aurora.* — Pink, very fragrant.

*Myrtle.* — Yellow marked crimson, similar to Duke of Orange, but the flower is larger and fuller.

*Daybreak.* — Delicate salmon, large and full.

*William Scott.* — Wilder pink, very large.

*Ben Hurr.* — Pink in color and quite large.

*Mrs. Robert Kift.* — La Purite pink, apparently very prolific.

*Mme. Albertine.* — Delicate pink.

#### CHRYSANTHEMUMS.

BY EDWIN LONSDALE, SECRETARY OF THE AMERICAN CHRYSANTHEMUM SOCIETY.

Among the best of the new chrysanthemums which I noted last November are the following :—

*Mrs. J. D. Eisele.* — Similar in color to Source d' Or, flower larger and more graceful in form.

*Mrs. Robert C. Ogden* is a large light purple flower.

*Ada McVicker* is white, with very broad florets; were it full to the centre this would take rank as one of the very best of the year.

*Anna Manda* is apparently an improvement on Mrs. Alpheus Hardy. It has a stiffer stem, and the shape of the flower is more spherical.

*Wm. Falconer* is a sport from Louis Boehner; the color is a delicate shade of pink, much more pleasing than that of the parent.

*W. A. Manda* is a yellow in the same class as the last two named.

*Harry May* is a very fine flower of a bronzy shade of yellow.

*Mrs. J. M. Schley* is a delicate pink.

*Charles J. Osborne.* — Bronzy yellow.

*Mrs. Marie Simpson.* — Yellow, in the way of Coronet, but better.

*Edward Hatch.* — Very large; pink, shaded with a yellowish tint.

*Maud Dean.* — Good form; light pink.

*Mrs. L. C. Madeira.* — A bright yellow flower; has a pet name, "The Golden Ball," which describes its form; it has more florets than any other flower that I know of.

*Mrs. Robert Craig* is a beautiful and promising white variety.

*Roslyn.* — Delicate pink.

*Emily Ladenburg.* — Bright crimson.

*Golden Wedding.* — Large, and a beautiful shade of yellow.

*Good Gracious.* — Resembles Kioté in form, and is pink in color.

*Dr. Covert.* — Bright yellow, and of good form and size.

*E. Hitzeroth.* — Yellow, and a very full and large flower.

*Col. W. T. Smith.* — Tawny yellow, large and graceful in form.

*Daisy.* — Makes a fine pot plant. It is a healthy grower, and when in bloom is a mass of perfect daisy-like flowers, resembling as closely as possible the daisy of our fields in June and July.

*Mrs. E. D. Adams* is a fine white.

*O. P. Bassett* is a crimson, after the style of *Cullingfordii* as to color, but the flower is larger.

#### CHRYSANTHEMUMS.

BY HENRY A. DREER, PHILADELPHIA.

*Leila*. — An entirely distinct and novel variety on account of the peculiar twisting and overlapping of the petals, which gives the flower a grotesque but at the same time graceful appearance; this, together with its color, of the most delicate soft Mermet pink, will undoubtedly make it a valuable and popular cut flower variety.

*Logan*. — A magnificent large incurved variety; flower white, beautifully striped with rose, reverse of petals silvery pink.

*Spring Grove*. — Flowers very large, of a rich crimson color, reverse of petals deep bronze.

*Mrs. H. B. Hall*. — A pleasing shade of pearl pink; flowers very large and of perfect shape, petals narrow. Will become a favorite cut flower variety.

*Mrs. J. D. Eisele*. — Almost as early as *Glorisum*; color, rich orange shaded with crimson; flowers large and of good substance.

*Rosstrevor*. — A grand variety, and entirely distinct from all others; in color it is a pleasing shade of bronze yellow and of large size, borne on stout stiff stems; petals stiff and crisp, beautifully incurved, forming a rounded surface very similar in shape to the popular *Harry E. Widener*.

*Mrs. W. F. Dreer*. — A magnificent variety; flowers large, reflexed, very double, the outer petals dark brown, shading to light in the centre.

*Mrs. R. C. Ogden*. — An immense symmetrical flower of a beautiful bright pink color, of good substance and form.

*Rockland*. — Flowers large, rich golden amber shaded with bronze, petals slightly toothed; fine flower, beautiful form and an improvement on *Frank Wilcox*.

*Marguerite Graham*. — Incurved, of perfect form; flowers erect on stout stems; when opening, a pale lemon changing rapidly to pure white; an acquisition for cut blooms.

*Rev. J. C. Hanna*. — Very large perfectly formed flowers, pink with end of petals tipped with silvery white.

*Victor*. — One of the best; flowers exceptionally fine and perfect in shape; in color it is a rich golden yellow slightly shaded with bronze.

#### CANNAS.

BY HENRY A. DREER, PHILADELPHIA.

Among the recent introductions in cannas we are only able to name a very few varieties owing to the extreme dry weather during June and

July; but a limited number have flowered, among the prominent sorts are : —

*Admiral Gervais*. — Somewhat on the style of Mad. Crozy, but smaller. The flowers are of a crimson scarlet, edged with golden yellow: the lower part of the petals or centre of the flower also being marked with the same color.

*Countess Olivier de l'Etoile*. — A most beautiful golden yellow, regularly and evenly spotted throughout with vermilion; undoubtedly the finest spotted variety that has come to our notice.

*Chas. Henderson*. — A fine compact growing variety, with broad, heavy petals of a rich cherry carmine; a beautiful flower; a distinct and handsome variety.

*Emperor William*. — A compact growing variety, with flowers of medium size of a crimson scarlet color.

*Maurice Mussy*. — Very large orange crimson flowers, free and distinct.

*Nardy Pere*. — Foliage green, with purple stems and veins; flowers of fair size, very bright cherry carmine; promises very good.

*Paul Bruant*. — Large flowers, with broad, bold petals, of a rich orange scarlet; very dwarf and free.

*Secretary Stewart*. — Bronzy purple foliage; flowers large, arranged in close, erect heads of a bright cherry carmine.

The following varieties, to which we called attention last season, are showing up exceptionally fine, and should be well known : —

*Alphonse Bourvier*. — This is the gem of the lot, and will undoubtedly take the place among crimsons that Mad. Crozy does among the scarlets.

*Capt. Suzzoni*. — A fine spotted yellow.

*J. D. Cabos*. — Orange salmon.

*J. Thomayer*. — Rich orange scarlet.

*P. Marquant*. — Bright salmon scarlet.

Among the best of the older varieties, introductions of 1889, 1890 and 1891, the following are all good : —

Ampere, Antoine Crozy, Antoine Chantin, Boucharlet Aine, Comte Horace de Choiseaul, Commandant Dubois, Chevallier Besson, Doyen Jo. Sisley, E. Chevreul, Edward Michel, Francois Crozy, Geoffrey St. Hillaire, Gen. Baron Berge, Henri L. Vilmorin, La Guill, Mr. Lefebvre, Mad. Antoinette de Allemany, Mdlle. de Cruillon, Mr. Cleveland, President Hardy, Perfection, Princess Susignani, Souv. de Jean Charreton, Secretaire Nicholas, Segionaire, Petit Jeanne, The Garden, Vitticeulteur Gaillard, W. Pfitzer.

#### BEDDING PLANTS.

BY WM. TRICKER, DONGAN HILLS, N. Y.

One of the best additions to this class of plants is the old *Sanchezia nobilis variegata* either as single plants or in masses. The color is a

striking and pleasing bright yellow; a new departure from the coleus class, and effective.

*Acalyphas* grows in favor every season. They delight in bright sunshine and warm weather.

*Phyllanthus roseo-pictus* is much to be desired. Its color is unique and pleasing. It makes a grand plant for sub-tropical work or general decoration; smaller plants are fine for centres of large beds.

*Papyrus antiquorum* is one of the most useful of ornamental sedges planted in the centre of a large bed with a border of green-leaved caladiums. It thrives well under the same conditions as cannas.

CANNAS.—*Madame Crozy* and *Alphonse Bowier* still hold first honors.

*J. D. Cabos* is another fine variety, and quite distinct. Plant is a vigorous grower, but not coarse, and has purple foliage and rich apricot large flowers.

#### TREES, SHRUBS, ETC.

BY MR. JACKSON DAWSON, ARNOLD ARBORETUM, BOSTON.

*Hypericum Buckleyi* is a charming low-growing shrub, six to nine inches in height, with yellow flowers in June and July. Native of North Carolina.

*Hypericum densiflorum* is also a fine American species; flowers small, yellow, but in large clusters.

*Hypericum galiodes*.—A fine plant from North Carolina, two to three feet high.

*Leespideza virgata*.—A neat low-growing Japanese plant, with light purple flower. Similar to those of our *Le. procumbens*. Flowers in August and September. Good rock-work plant.

*Enkianthus campanulatus and Japonicus* bid fair to stand our winter with a slight protection.

*Prunus Grayana*.—From Japan, has long spikes of white flowers, similar to those of our choke-cherry, but larger, and it is the earliest of the prunuuses to blossom.

A form of *Spiræa Japonica*, from Yesso, is only six to eight inches high, with light rosy flowers.

*Lucothæa Grayana* is a rose colored species from Japan, but as to its hardiness or beauty am yet unable to say.

*Lindera præcox*.—A Japanese species, possibly similar to our *L. berzonin*. The foliage and stems are of a pale green color.

*Berberis Thunbergii variegata*.—Originated at the Arboretum several years ago, and it has stood out well.

*Acanthopanax riciniifolia (Aralia Maximowiczii)*.—Although not new is but little known. It makes quite a tree, and is beautiful in foliage.

We have a new *Deutzia* from China, with pretty pinkish white flowers. Unfortunately not quite hardy in this vicinity, but it will be a good addition a little further south.

*Cornus sericea*.—With golden variegated foliage, after the style of *C. spathii*, but it is hardier. This originated at the Arboretum.

*Bambusa tessellata* is a dwarf bamboo, with broad foliage margined in the autumn with a light yellowish-brown band. Hardy. It is a good addition to this class of plants.

*Clematis flammula fragrans*.—Similar in habit and growth to *Flammula*, but very free flowering; blossoms pure white and deliciously fragrant.

*Opuntia X. Hoveyji*.—A vigorous grower, with large yellow flowers. Very hardy.

*Euonymus Europæus var. Hamiltonianus*, Col.—Of a delicate pink color, with scarlet berries. This is one of the most showy of the *Euonymuses*, and first appeared as *Euonymus* sp. Yeddo. There seems to be two varieties of this plant, one with broad leaves and large fruit, while the other has small leaves and fruit. The large one is by far the most desirable.

*Exochorda Albertii* is a new species flowered in Massachusetts this season. The blossoms were very similar to those of *E. grandiflora*, but smaller with light pink dots near the throat of the flower. The plant may improve when older and stronger, but at present it is not so good as *E. grandiflora*.

*Robinia Neo-Mexicana* is a rare species from New Mexico, and hardy in the vicinity of Boston. The flowers are light purplish pink.

*Wistaria brachybotris*.—The white variety, if not new, is one of the handsomest plants that I have ever seen. Flowers are pure white and expand after the *Chinensis* type are out of bloom; individual spikes twenty to thirty inches long. There is also a blue-flowered variety of the same.

*Callicarpo mollis* is not hardy enough for the North, but might make an addition to the berry-plants for fall decoration.

*Leucothæ recurva*.—From the mountains of North Carolina. Flowers small, greenish white, in large clusters.

*Lonicera bella rosea and alba*.—Seem to be hybrids of *Morowii* and are very beautiful in flowers and fruit; at the present time, August 4th, nothing could be more brilliant.

*Viburnum tomentosum*.—The single form of *V. plicatum*, has white flower and blue berries, and it is a good addition.

*Viburnum Opulus*.—Variety from mountains of Pekin, is a noble plant, with large panicles of white flowers succeeded by scarlet fruit. Much more showy in flower than the common *Opulus*.

*Vaccinium hirsutum*.—Dwarf variety of blue berry, with downy fruit. From mountains of North Carolina.

*Clematis Eriostemon* is a half woody climber with most lovely purplish blue flower, lasting a long time in bloom. A variety called *Spathiana* has rosy purple flowers.



*Clematis odorata* is a species with blue anemone-like flowers.

*Celtis Davidiana* is a desirable species of nettle tree from China, with smooth leaves.

*Prunus triloba*.— This is one of the finest additions to the prunuses. The flowers are large, single and rosy pink, and in many ways it is more to be desired than the double form.

*Prunus maritima*, and *Prunus Virginiana*, with yellow fruit.

One of the most desirable new trees for the landscape artist is *Liriodendron tulipeferum fastigiatum*, the fastigiate tulip tree. It is similar in form to the Lombardy poplar, and as we have so few of this style of tree, I think it will become very popular as soon as it is well known.

*Carpinus cordata*, a new hornbeam from Japan.

*Ilex verticillata*, with yellow fruit. This was found wild in Andover, Mass., by Mrs. John Follansbee, and is a good companion to the ordinary form.

*Philadelphus Lemoinci* is a good dwarf form, with medium sized white flowers.

*Pyrus malus atrosanguineus* is a very dark, almost crimson, flowering apple.

*Prunus Alleghaniensis* is a new species found by Professor Porter in the mountains of Pennsylvania.

A new species of *Diervilla* (*Weigelia*) without name, from Japan. Flowers erect in large clusters, and of a rosy pink color. If hardy, it will be a most excellent addition to our shrubs.

*Catalpa Bungei*.— A rare species from China, with large leaves deeply serrated. The one usually grown as *C. Bungei* is supposed to be a dwarf form of *C. bignonioides*.

*Lilium Canadensis*.— Variety found in the woods at Winchester, Mass., has flowers handsomely marked with rich chocolate spots, the pale yellow petals tinged with pink.

*Bignonia æquinoxialis* is an old but rare greenhouse climber with yellow flowers. It comes from Formosa.

*Rhamnus grandifolius* is a large-foliaged variety of buckthorn with handsome glossy foliage.

*Rhamnus Alpinus*.—An old but good plant. I know of nothing that will grow on poorer soil, and make a more presentable appearance in the hot weather.

*Ligustrum Iboti* (True).— This is one of the finest early summer blooming shrubs we have ; the flowers are drooping, of pure white, and in the greatest abundance.

*Staphylea emodei* is a new species from China.

*Rosa Indica anemoneflora* is a pretty double white rose in clusters, last of June. Needs light protection.

*Rosa Pissardi* is a semi-double, light pink rose in immense clusters,

and it blooms for several months. This might become the parent of a new class of summer blooming roses.

*Rosa multiflora grandiflora* is a large white variety of *R. multiflora*. but more tender than a tea rose.

*Rosa lucida flora plena* is a very pretty double form of our wild rose.

*Rosa polyantha*, Little Lyons (annual rose).—Pink and white, single or semi-double; flowering a few weeks after they come up from seed.

*Rosa multiflora* × *Mrs. Hazard*.—A large single white rose in clusters; vigorous and free blooming. One of my hybrids.

*Rosa Rugosa* × *Jacqueminot*.—A single rose, almost carmine in color. Is said to be the most brilliant colored single rose known; foliage good. One of my hybrids.

*Rosa multiflora* × *Jacqueminot*.—A robust grower with stout clusters of more than semi-double flowers. Rose colored blossoms of good fragrance. Also one of my hybrids.

*Rose Seedling*, from Boston Belle, possibly crossed with *Rosa alba semiplena*; a strong, robust grower and perfectly hardy. Flowers large, white and very double, after the style of *Mad. Plantier*, but larger and more durable; keeping in bloom longer than the June roses. Another of my roses.

*Rosa gigantea*.—A fine single rose; white. Figured in the *Gardeners' Chronicle* as the largest single rose in existence. Not hardy.

*Iris Susiana*.—At Professor Watson's, flowers better in open ground than if forced under glass.

*Techophiloxa cyaneo-crocea* (Chilian Crocus).—Flower purple-blue like crocus, *Cyclobothera McOweni* and *pulchellus*, are recommended to be grown from cut flowers like *calochortus*, *Iris Tartarica*, etc.

*Astilbe Japonica compacta multiflora* is the same as *Astilbe Japonica grandiflora*. Under one name it can be bought for nine dollars per one hundred; the other, twenty-two dollars per one hundred.

Mr. Watson says, *Lilium umbellatum*, although not new is excellent for forcing.

*Delphinium Cashmerianum*.—Excellent in form; eight to ten spikes of bloom to a plant.

#### NEW, RARE AND DESERVING TREES.

BY T. R. TRUMPY, (PARSONS & SON) KISSENA NURSERIES, FLUSHING, N. Y.

*Acer carpinifolium*.—Hornbeam-leaved, quite unlike other Japanese maples.

*Acer aconitifolium*.—Deeply cut foliage; colors fine in fall. Japan.

*Acer Japonicum aureum*.—Golden-leaved Japanese maple; very choice. Better if shaded from hot sunshine.

*Acer palmatum atropurpureum nigrum*.—The darkest of all Japanese maples.

*Acer palmatum sanguineum crispum*.—Finely divided crimped leaves ; rare.

*Acer palmatum dissectum roseum*.—A beautifully tinted variety in early summer and fall.

*Acer platanoides dissectum*.—Deeply cut, striking leaves. Although old, very little known.

*Acer platanoides marginatum aureum*.—Very rare.

*Acer pseudo-platanus Simon Louis Freres*.—Almost tricolor-leaved.

*Æsculus Hippocastanum laciniata heterophylla*.—Very rare.

*Amelanchier Japonica*.—White flowers in spring, orange berries in fall. Very hardy.

*Cratægus glabra*.—We have a form got from the old Prince's Nursery that keeps its fruit all winter.

*Fagus sylvatica tricolor*.—A very beautiful purple beech with bright red distinct variegation.

*Fraxinus Americana alba*.—A fine variety from Nashville, Tenn.

*Halesia diptera*.—The finest of all. Needs shelter in the north.

*Magnolias Watsoni, parviflora, hypoleuca* and *atropurpurea*, from Japan, are splendid decorative plants.

*Planera acuminata*.—One of the finest of Japan's elms.

*Prunus Padus, fl. pl.*—Free flowering, lasts well, very showy.

*Quercus concordia* is our best golden-leaved tree ; *Q. pannonica* has deeply divided leaves ; *Q. Daimio*, very large leaves ; and *Q. cucullata fastigiata* is a rare pyramidal oak with three-lobed leaves.

*Salix regalis*.—Silvery-leaved, first rate for color.

*Salix tristis*.—Dwarf, glaucous leaves.

*Staphylea Bumalda*.—A first class flowering shrub.

*Tilia Mongolica*.—Small-leaved, fine, inclines to drooping habits.

*Prunus serotina pendula*.—A decided weeping form of our wild bird-cherry.

*Benthamia Japonica*.—Two forms. Has fine large white dogwood-like flowers, in June after the plants are in full leaf.

*Berberis Hakodala*.—A strong grower ; has fine bright berries in fall.

*Berberis sinensis*.—Although old it is almost unknown in general cultivation. For ornamental fruit it is very choice.

*Bacharis halmifolia*.—Its only fault is that it is a native. Exceedingly showy in October and November.

*Ceanothus Americanus, fl. pl.*—An improvement on the type. Very pretty.

*Orixa Japonica*.—A distinct appearing shrubby vine.

*Clethra barbinerva*.—A large flowering species from Japan, but a little tender in the Northern States.

*Cornus alba Spathii*.—The best of the golden variegated dog-woods.

*Cydonia Japonica tricolor*.—Fairly marked foliage ; beautiful.

*Daphne Genkwa*.—The blue-flowered daphne. One of the choicest of all hardy shrubs.

*Euonymus Yeddoensis*.—A select shrub with angular wood, showy fruit, and bright colored foliage in fall.

*Hydrangea paniculata*.—July flowering variety. An extra early flowering form of the "single" type.

*Itea Caroliniana*.—Larger flowering than *Itea Virginica* ; finely colored foliage in fall.

*Lonicera Albertii*.—A small bushy plant with very fragrant, pretty, rosy-lilac flowers.

*Lonicera Morowii*.—A large bush honeysuckle with white flowers, and large brilliant crimson fruit in summer.

*Symplocos cratagioides*.—A Japanese shrub with pure white flowers succeeded by deep blue berries.

*Syringa villosa*.—A Chinese species with extra fine pale rose blossoms.

*Viburnum dilatatum*.—A vigorous shrub from Japan with a wealth of white flowers in June, and scarlet berries in fall, and which last on the bushes all winter.

*Viburnum Opulus mucronanthum*.—A grand find. The fruit is twice as large as that of *Opulus*.

CONIFEROUS TREES AND SHRUBS.—*Picea corulea Hunnewelliana*.—The bluest of all spruces.

*Picea alba aurea*.—A golden suffused white spruce.

*Picea Amorika*.—From Eastern Asia, and promises first rate.

*Picea orientalis aurea*.—An oriental spruce whose leaves are suffused with a golden tint.

*Picea excelsa aurea*.—A well marked yellow variegated form of the Norway spruce ; it promises to be one of the most useful of all conifers.

*Picea Ajanensis*.—A Japanese beautiful species with a particularly white under side to its leaves.

*Tsuga Canadensis repanda glauca*.—A distinct glaucous-leaved form much inclined to weep.

*Tsuga Sieboldii*.—The Japanese hemlock. One of the best evergreens ever introduced.

*Tsuga Sieboldii nana*.—A pigmy form of the Japanese hemlock.

*Cedrus Atlantica glauca*.—The very finest of all glaucous-leaved conifers.

*Abies Veitchii*.—Very fine, very silvery beneath ; grows much in style of the Nordman's silver fir.

*Abies brachyphylla*.—Another very fine Japanese silver fir. Resembles *A. Cephalonica*, but the leaves are broader.

*Abies concolor glauca*.—Hardy, of a fine glaucous blue color.

*Pinus Massoniana*, var.—The most decidedly variegated of all pinuses.

*Pinus Monspeliensis*.—A handsome large-leaved pine of the Pyrenæa section.

*Taxus baccata repanda*.—Perfectly hardy, a vigorous grower and pretty plant.

*Taxus cuspidata*.—A Japanese species, handsome in every way and perfectly hardy.

*Taxus cuspidata nana*.—A lesser growing variety than the preceding, but possessing all its good qualities.

*Thuja Standishi*.—From Japan. Has somewhat drooping habit; very handsome evergreen.

#### MISCELLANEOUS.

BY WILLIAM THOMPSON, IPSWICH, ENG.

*Dianthus Callizonus*.—This interesting Alpine pink is remarkable for the large size of its flowers which exceed in dimensions those of the well known *D. Alpinus*. It closely resembles this species in its dwarf-like growth, but is distinguished from it by its glaucous pointed foliage, and in strong specimens the flower stems are taller and more branched. The petals are of a fine rosy purple, marked with a zone of minute spots or speckles as in *D. Alpinus*. It is a native of Pennsylvania, and is still a rare plant in gardens, which may be due possibly to a certain delicacy of constitution, rendering it liable to attacks of mildew. It is, however, easily increased by cuttings struck under a handlight, and is so ornamental that it is worth any amount of trouble to preserve.

*Gerbera Jamesonii*.—This fine South African composite may not be entirely unknown in America, but it must be in very few hands, and therefore may fairly be admitted into a synopsis of new plants. It is true that it can scarcely be classed with hardy perennials, but it is certainly amenable to open air culture in summer, even in the Northern States of the Union, whilst southward it will find a climate to which it will readily accommodate itself at all seasons.

From a somewhat woody, half creeping woodstock, a small tuft of lyrate pinnatifid leaves is thrown up, their stalks varying much in length, and from these arise the tall, erect single flowered scapes, bearing a large flower, which is nodding in the bud, and when fully expanded from four to five inches across with from twenty to twenty-five linear lanceolate rays. Florets of a fine orange scarlet color, the disk being about one inch across and of the same tint. Under glass the scape is apt to become drawn unless kept close to the light. It is imperative that the plant should have good drainage. The number of flowers given by a plant of average size is not large—three or four at most—but their splendid color and unusual size fairly compensate the

grower for their scarcity. At the Cambridge Botanic Garden, England, the plant has survived two, if not three winters, at the base of a greenhouse wall, and protected by a small glass coping. For the first time this spring, the writer has been unexpectedly successful in securing a few seeds, which permits of a hope that the plant may be extensively propagated by that means ; but hitherto it has been increased by careful division of sturdy plants.

*Morisia hypogœa*.—To what extent this interesting crucifer from the island of Sardinia will be found suitable in North American Gardens, it is not easy to say, but in a country of such “magnificent distances” and varying latitudes, it will certainly find somewhere a home, and in time many.

A double interest attaches to this pretty spring flower, first, as a very ornamental early blooming rock plant, and secondly for the peculiarity which it possesses, referred to in its specific name of burying its seed vessel. In a country where the peanut is so familiar, this may not appear so remarkable as it does to the denizens of John Bull’s Islands, but the bright yellow flowers, nestling on their cushion of glossy green foliage, will certainly be appreciated. It is, as will be inferred from what precedes, a very dwarf plant, forming a spreading top of smooth, dark green, narrow, pinnatifid foliage ; the comparatively large bright yellow flowers being borne singly in succession above the foliage in considerable numbers, and for some weeks in April and May. It is easily increased by cuttings, though it is rather difficult in the case of small plants to obtain them of a reasonable length. Seeds may soon be grown for the same purpose when they can be got. The experience of the writer is, however, that the tiny pods wither, and thus lose their natural instinct to bury themselves.

*Onosma albâ-roseum*.—The genus *Onosma* includes several species of more or less interest, and one at least, the *O. tauricum*, may claim a place in even the smallest garden. Most of these have yellow flowers, but in the present novelty, due to the enterprise of Herr Max Leichtlin, we have a species yielding white blossoms. It is a plant of robust growth, forming a tuft of rough greyish spathulate to lanceolate foliage, the flowers being produced in long terminal scorpioid racemes. The corolla is at first creamy-white, the margin of the tube being rose-colored. As the flower fades the entire corolla assumes a deep rose tint, the same raceme thus presenting several shades of color.

It is not unlikely, however, that different specimens may vary in tint. Whether this plant is a true perennial remains to be seen, at present there is some probability of it. It is perfectly hardy against cold, but should be planted on rock work or in well drained soil. A native of America. Propagated by seeds and cuttings.

*Primula Poisoni* (Franchet).—Any good addition to the genus *primula* is sure of a hearty welcome from agriculturists, and although

the present novelty bears a strong resemblance to the well known *P. Japonica*, there are sufficient differences to make it very acceptable.

It forms an ample tip of spatulate foliage, the leaves being from four to six inches in length with finely denticulate margins and slightly glaucous. From their midst arises a stout scape, a foot or more high, bearing several distant whorls of stalked flowers; each whorl comprised of about six to three flowers, the number diminishing upwards.

The corollā in our specimen is scarcely as large as in the Japanese plant, but the color is bright and distinct, being crimson purple with a tinge of violet—in the only specimen yet seen the eye being yellow. Probably the color is slightly variable.

With regard to the hardiness of this species, data are at present wanting; but it is to be feared that cool greenhouse culture may be necessary. It is true that it comes to us from the same province as the *Thalictrum Delawargi*, but it appears more at home under glass, though further experience may show that it is able to resist a greater degree of cold than the writer has supposed. One point may be taken as established, that it is a lover of moisture, in which it agrees with the majority of the species. It ripens seeds freely, and will therefore soon be widely diffused. From the Chinese province of Yun-nan, where it was discovered by M. Franchet, to whom botanical science is indebted for many other interesting plants.

*Thalictrum Delawargi*.—Few of the species of Meadow Rue are remarkable for the beauty of their flowers, but in this new Chinese introduction we have a notable exception. In its pretty adiantum-like compound foliage, it does not differ materially from many of the species long cultivated, but in place of the apetalous flowers which characterize the majority of this genus, we have a showy panicle of delicately tinted mauve colored blossoms in which four concave sepals do duty for petals most effectively. The stems are about two to two and one-half feet in height, and stained with deep purple, a tint which even extends to the cluster of achenia, which thus continue to decorate the plant after the sepals have fallen, and lengthen its ornamental season. A doubt has arisen respecting the duration of this truly elegant species, as it exhibits a disposition to die off after maturing seed. Still as no other annual or biennial species is known to exist, it is difficult to believe that the present plant can be other than perennial in duration. It is readily raised from seed, and the resulting plants should flower the following season.

*Achillea Mongolica*.—Two recently introduced members of this familiar genus deserve honorable mention as valuable additions to our hardy plants. The first of these is named at the head of this note. It is an erect growing species with rather slender stems two to two and one-half feet in height, with narrowly linear lanceolate foliage, and terminal corymbs of pure white flowers larger than most of those previously

in cultivation. Though quite acceptable as a border plant it will be of even more value for cutting, for which it is exceedingly adapted. It should quickly become a common plant, as it increases rapidly at the root, almost too rapidly, it may be said. The specific name of this plant sufficiently declares its origin.

*Achillea rupestris*.—This very neat Calabrian species is likely to prove as useful a rock plant as the foregoing will prove for cutting. It is of very dwarf habit, producing numerous trailing shoots, which throw out rootlets at their joints, bearing fleshy strap-shaped foliage toothed at the point. The flowers are produced in small corymbs or short stems, and in established plants in such abundance as to form a sheet of white. It blooms in May and June, and may readily be increased by division.

ENDOGENS.—Of interesting novelties in the way of hardy or half hardy bulbs, may be named the following:—

*Camassia Cusickii* deserves a prominent place, exceeding as it does all its sister species in its vigorous growth and stature. The flower stems reach the height of nearly four feet, of which nearly two feet are occupied by the flower spike. The perianth segments are slightly narrower, and of a somewhat paler blue than in the well known *C. esculenta*, but are broad enough to be very effective. The channelled foliage is broader than in that species, being fully one and one-half inches in breadth near the base, and forms a bold tuft beneath the scapes. In America this plant may possibly be better known than in England, but can scarcely be very common if no longer an absolute novelty. It deserves to be recorded that this species has been offered in Europe under the incorrect designation of *C. Engelmannii*. It is scarcely necessary to state that hailing from Oregon, it is perfectly hardy against cold. The bulbs are considerably larger than in the other species.

*Tritonia aurea* of Pappe, a well known and popular Cape Irid, (also cultivated under the name of *Crococma aurea* of Planchon, a name now considered as only of sectional value) has been recently thrown into the shade by two interesting forms, which are of exceptional value. The first of these is the *T. aurea imperialis*, which with the same general habit as the type attains the height of at least three feet, and produces flowers from three to four inches in diameter of the deepest orange. Probably the best effect is obtained with this plant by pot cultivation. On the greenhouse stage the flowers are elevated to a position which permits of the perianth being better seen. But this is a detail. Whether grown in the open border or in a cool greenhouse it is a noble plant, and will be generally grown when reduced in price.

The second variety is known as *T. aurea maculata*, and does not much differ from the type in height of stem or size of flowers. It is distinguished by the perianth having its segments conspicuously blotched with brown, a feature which is reproduced by seed. It is an excellent



plant either for the garden or the cool house. It goes without saying, that both these forms like the type will need in America to be lifted in the fall and repotted.

Not absolutely new, but probably little known in America is the *Veratrum Maackii*, a veritable miniature of the well known *V. nigrum*, so remarkable for its tall panicle of almost black flowers. The stem scarcely reaches the height of two feet; the foliage is very narrow, almost linear, and the panicle is much smaller. The flowers themselves are, however, of the same sombre hue as in the larger plant. Probably a native of the Amur region, and quite hardy in England at least.

*Roseoca Sikkimensis*.—Like the preceding, this plant has been in cultivation some years, but will probably be new to most American cultivators. It belongs to the ginger tribe, and produces tuberous roots not unlike those of *Commelina*, but somewhat smaller. Its habit of growth is very similar to that of the genus just named, but the stems are dwarfer, usually not exceeding a foot in height, with sheathing leaves from the uppermost pair of which are developed in succession numerous handsome, large, rich violet purple ringent flowers, which may be roughly compared to those of a small *oncidium* and other smaller orchids, or to some of the labiates, though structurally very different. The flower is six cleft with segments in two series; the two superior ones forming an arched upper lip, one of the lower ones being developed into a conspicuous broad labellum. This plant will certainly give pleasure to those in search of novelty; the more so that it is of the easiest cultivation in any mixed soil. Readily raised from seed, tubers flowering second year, but more finely when roots are older. Tubers must be lifted in the fall, and be kept from frost in dry soil. In planting a group of half a dozen roots is the best arrangement. This plant is possibly but a form of the variable *R. purpurea*, but for garden purposes it may be considered as distinct. The Sikkim form being much deeper in color than the type, which is more of a lilac purple and less hardy.

*Liriope graminifolia*.—This curious plant is a member of an aberrant tribe or suborder of *Liliaceæ* to which it gives its name *Liriopeæ*. It merits the attention of horticulturists, flowering as it does late in the summer when the glories of the garden are on the wane. It produces from a fasciated root a tuft of long strap-like leaves of somewhat rigid character and shining surface. From these arise one or more stems one and one-half feet in height, stained with deep blue, and bearing in their upper half a raceme of small crowded flowers of the same color, and lasting for some weeks or even months under glass.\* This plant is hardy in England, but I cannot say that it will be so in America far north of Washington. Experiment must determine that. Like too

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\* These are followed by blue berries, which are also ornamental, and which have the curious faculty of bursting irregularly and prematurely, and exposing the seeds in a partially ripe condition.

many other plants it is burdened with several synonyms, the oldest of which is *Dracœna graminifolia*, a later one being *Ophiopogon graminifolium*. Probably of Chinese or Japanese origin.

ANNUALS.—The number of annual plants of very recent introduction deserving of notice is very limited.

Among the most useful may be named the new varieties of corn-flower, *Centaurea cyanus*, which though sent out as double-flowered, are really chiefly remarkable for the great variety of colors they offer, some of them being very attractive, whilst others are almost bizarre by their contrasts. They are admirable for cutting, as every American bouquetist doubtless knows.

Quite as interesting as the foregoing, if not more so, is the new race of dwarf corn-flower, though at present limited to one color, blue. It is offered under the name of *Centaurea cyanus nana compacta Victoria*, (how our Teutonic friends love to pile up the adjectives) and compact indeed it is, in fact pygmy would be the more appropriate term. So far as yet seen, the height of this novelty does not exceed four inches, and it forms so dense and even a growth that it might have been clipped into shape. As might be anticipated the heads are smaller than in the tall varieties, and the foot stalks are very short, so that the plant is useless for cutting purposes, though excellent as an edging.

Next in alphabetical order at least, we may place a new celosia which excited much admiration at the last Paris Exhibition, where a large bed of it was displayed at the Trocadero with great effect. It is merely a form of the well known *Celosia pyramidalis plumosa*, and is catalogued under the name of *Celosia Thompsoni*. It differs from the ordinary forms of this plant by its more vigorous growth, and for its bronzy-purple foliage, which is surmounted by large spikes of flowers of a brilliant crimson. The American climate should be thoroughly congenial to this and other varieties of this ornamental plant.

In our next annual we shall have at least the advantage of entire novelty, for though known to botanists, the *Lyperia multifida* is now first introduced in the living state. As the name will doubtless suggest, it is a South African plant, hailing from the Transvaal, and belongs to the natural order, Scrophulariaceæ. It forms a dwarf bush at present nine inches high with a probability of extension, many wiry stems arising from the base, and these much branched and clothed with very finely pinnatifid or dissected foliage, each leaf being from one-half to one inch long. From the axils both of stems and branches the flowers are produced singly on pedicels nearly one inch long, the corolla having a short curved tube and a spreading limb of five oval lobes, the lower one being larger than the rest. The color is a pleasing rose-purple, reminding one of the Virginian stock, the limb being finely veined with deeper purple, as in that world-known flower, and the eye of a clear yellow, around which the rose-purple is deepened. Though not to be characterized as a first

class plant, its neat habit, pretty foliage and abundant flowers produced for weeks together, probably till frost sets in, give it considerable claims to the attention of the amateur. The ordinary mode of increase will be by seed, which will, however, not be very freely produced to judge from present appearances.

Our next annual, or perhaps I should say biennial, for it will scarcely flower the first season, unless in that conveniently vague region known as down South, is the Giant Tobacco, styled by botanists, *Nicotiana colossea*. And a veritable son of Anak it is, reaching as it does in suitable soil, the height of seven or eight feet, perhaps more with abundant moisture and warmth. Its chief attraction lies in its enormous foliage which obovate in form and rounded at the extremity, is, while young, clothed with woolly pubescence tinged with red. As it advances in age they assume a luxuriant green tint, but the mid-rib and veins retain their reddish hue. This plant has not been seen by the writer in its adult stage, his being still small specimens.

The old proverb, "It never rains but it pours," is well illustrated by the numerous species of poppy, which for several years past have been showered upon the horticultural public, and venture to surmise that others remain behind. The species to be chronicled on the present occasion is that known as the Tulip Poppy, *Papaver glaucum*, an Armenian species introduced by the indefatigable Max Leichtlin. It may be said to combine the color of the *P. Rhœas*, with the foliage of the *P. somniferum*. It grows from twelve to eighteen inches high, with erect stems and flower stalks, quite self-supporting. The glaucous green foliage is less obtrusive than in the opium poppy, being not any smaller, but narrower. The flowers are borne on naked stalks at least one foot long or more, the petals being of the richest crimson scarlet, the two innermost being smaller than the outermost, and arranged with cup-like form, suggestive of its popular name. The petals are marked with small black spots at base, but these produce little effect. It is to the glowing color that the flower owes its value. It lasts long in bloom, and promises to yield plenty of seed.

*Begonia Baumannii*.—There can be no question of the interest attaching to this remarkable species, though doubt may arise as to its claim to a place among hardy introductions. Its introducer, Lemoine of Nancy, distinctly states, however, that it is likely to prove admirably adapted for open air growth in summer, and especially as a window plant, as well as interior decoration. It is a native of Bolivia, whence it was sent by Dr. Sace, of Cochabamba, to Mr. Baumann, a Belgian nurseryman. In its native habitats it produces tubers as large as an ordinary melon, and frequently of the weight of three or four pounds. The stems are stout and short, owing to which feature the roundish, kidney-shaped leaves have the appearance of being radical. The reddish erect flower stems are often as many as twenty-five or more on

a single tuber, and each bears from three to six large flowers well above the foliage. The male blossoms measure from three to four inches across and are of a beautiful clear rose color, with so powerful a fragrance of the tea rose that two or three plants are sufficient to perfume an ordinary greenhouse. Small tubers, one to one and one-half inches in diameter, flower freely. One peculiarity they possess must be mentioned. They often, perhaps generally, remain in the soil some time before starting, even when kept in a warm house. The purchaser, therefore, must not be alarmed should they fail to grow as quickly as the ordinary tuberous-rooted varieties. The plant evidently loves a moist soil, but does not appear at all fastidious as to its composition. The actual value of this novelty is indisputable, but farther it opens a prospect of a race of begonias with sweet-scented flowers, which adds considerably to its importance.

*Gladiolus Nanceianus*—Few, if any of the recent series of the famous nurseries of Nancy, better merit attention than the new strain of gladiolus introduced by M. Lemoine under the above name. Everybody is familiar with his hybrids of *G. gandavensis* with *G. purpureo-auratus*, distributed under the name of *Gladiolus Lemoinei* and the varieties of which promise to become almost embarrassing by their number. The present appellation has been given to a series of hybrids raised between the best varieties of *G. gandavensis* and *G. Saundersii*, to the latter of which they owe their hardiness. There is, however, some discrepancy on this point, for according to Mr. E. H. Krelage, of Haarlem, one of the parents was a variety of *G. Lemoinei* race. Be that as it may, the resulting hybrids are plants of vigorous growth with stems reaching five to six feet in height, and bearing very large well expanded flowers of the richest and most varied. The breadth of the perianth is the more remarkable when the drooping form of the *G. Saundersii* is considered. In these new hybrids the flowers look you fairly in the face. To quote the words of Mr. Krelage, "It would need a florists' catalogue to describe at length all the varieties distributed by M. Lemoine," but we may find space for the names and colors of a few of the most striking. Our selection will be:—

*Le Grand Carnot*, with flowers of a bright shade of scarlet, faintly streaked with carmine, and with two large and most distinctly marked blotches of pale yellow on the lower segments.

*Dr. H. P. Walcott*.—Flowers of a pleasing light red, flaked with carmine and irregularly mottled with white. The two lower segments distinctly blotched with creamy white.

*Kleber*.—Large well expanded flowers of a fine light rose color flaked with carmine, and distinctly blotched with pure white on the two lower segments.

*Harry Veitch*.—Remarkable for the depth of color of its dark crimson-maroon flowers. Rather a slender grower; flowers of medium size.

*A. de la Devansaye.*—Very vigorous habit ; flowers of light carmine, flaked with lake. Lower segments beautifully divided into three bands of color — deep carmine spotted with white, pure white and light carmine, altogether a very fine variety.

*Professor Sargent.*—Tall habit with branching spike ; large flower of deep carmine with large and distinct blotches, creamy yellow on lower segments.

*Charles Baltet.*—A remarkable variety with large flower of curious shade of rosy-violet, clear white throat, bordered with a band of clear rose color.

*Massena.*—Vigorous habit, large handsome flowers of light red, faintly flaked with carmine and large pure white spots on lower segments, spotted with carmine towards the throat.

*Comte Horace de Choiseul.*—A slender variety of great beauty with well opened flower of perfect shape, of brilliant shade of light scarlet, flamed with carmine, and with blotches of a deep shade of crimson, tipped with creamy yellow on lower segments.

*P. Duchartre.*—Large flowers of rich vinous scarlet, with dark carmine flakes on lower segments, marbled with creamy white.

*Robert Lindsay.*—Flowers large, brilliant orange, with large blotches of blood-red, bordered with scarlet and spotted yellow.

*Wm. Watson.*—Very large flowers of soft lilac-rose, lower segments blotched with maroon on straw yellow ground ; an early bloomer.

It is hardly necessary to remark that these, as well as the other varieties of same strain, must be lifted in the fall, and be kept in dry soil till planting time again comes round.

*La Dame Blanche carnation.*—Space must be found for a brief reference to this very fine new white carnation, introduced this season by Mr. E. Benary, of Erfurt, the fortunate raiser of the now well known fine yellow variety, Germania. From personal observation the writer can speak in the highest terms of this most beautiful variety. Its semi-dwarf but vigorous habit leaves nothing to be desired, and the flowers are of the purest white, full and evenly arranged. To crown all, the calyx tube does not burst. Rejoice, oh carnation lovers over this charming acquisition, and bid Mr. Benary continue his labors until we have a round dozen of distinct colors from his grounds.

It can hardly be a matter of doubt that among the auditors or readers of these notes, there may be some who can appreciate an old, but hitherto overlooked plant as much as one of the most recent introduction. To such the writer ventures to recommend the three following plants scarcely seen outside botanic gardens :—

*Lathyrus filiformis.*—A plant till very recently catalogued as *Orobis canescens*, but this latter genus being united to the former the cultivator must learn the art of forgetting. This is an excellent dwarf early

flowering perennial, with creeping roots ; slender stems about one foot high, pinnate leaves, the lanceolate linear leaflets in about three pairs, and a short raceme of pea-like flowers of the deepest violet color, which constitute the great charm of this plant. It should be grown in a good patch, and will please the most fastidious.

*Salvia hians*, Royle.—Is equally good, and quite as hardy and as little known as the foregoing. It grows about two feet to two feet and one-half high, the foliage being hastate in form, and of a dark green shade. From the root arise several stout stems more or less branched, bearing a few small leaves, and long racemes of large deep violet colors ; flowers spotted in the throat with yellowish white. It is easily raised from seed.

*Scabiosa caucasica alba*.—Amongst the best appreciated border perennials the blue Caucasian scabious takes a high place, and being largely increased by seed it is not a little strange that varieties differing in shade should not have presented themselves. A promising start was made in that direction a few years since by an English gardener, who raised some highly interesting hybrids between this plant and the common sweet scabious. Unfortunately these hybrids appear to have inherited more of the biennial constitution of the sweet scabious than of the parent, the color of which they shared, and all without exception died out. The pretty white form now described, is however, an established gain, obtained in an English nursery, and needs but time for its distribution. It is identical in habit with the ordinary blue form so long cultivated, differing only in its pure white flowers. It is to be hoped that it may prove but the first in a series of new varieties from the same source.

*Anoiganthus breviflorus*.—This new amaryllid has resisted the two last severe winters in Holland, and may therefore prove hardy in the Northern States of Uncle Sam's territories. In any case it will need but slight protection, a cone of dry sawdust under a bell glass may suffice. It is a South African plant with the habit of *Cyrtanthus lutescens*, forming a bulb of moderate size, which produces a few narrow strap-shaped leaves, and contemporaneously with them a scape about nine inches high, bearing an umbel of two to six, or even eight flowers. These are about one and one-half inch in length, with a bright yellow tubular perianth with somewhat spreading lobes, produced in May and June, or earlier when grown under glass. From three to six bulbs grouped in the border would furnish a contingent of showy flowers for several weeks.

Two new lilies of great interest have been recently added to the long list of these beautiful and popular bulbs :—

*Lilium Henryi* is a native of Western China, where it was discovered by the botanist whose name it bears, Dr. Henry, by whom it was sent to Kew two years since, where it has twice flowered, and has survived the

winter in the open ground. It is described as having flowers resembling in form those of the well known *L. speciosum*, but orange yellow in color. The specimen referred to produced only four or five flowers on stems about four feet in height, but Dr. Henry states that he has seen the stems as tall as a man, with magnificent heads (or corymbs) of flowers. There can be little doubt as to the highly ornamental character of this fine bulb, and it is to be hoped that it will soon be sufficiently multiplied to be distributed.

The second species to be noted, the *Lilium Nepalense*, is fully as distinct and ornamental as the preceding, but it may be doubted if it will prove as easy of cultivation. Its first introduction to English gardens, preceded by some years that of the *Lilium Henryi*, but it was not until the autumn of 1888, that plants were exhibited by Messrs. Hugh Low & Co., of Clapton, in a flowering state, at a meeting of the Royal Horticultural Society. Not having had the advantage of seeing this plant in bloom, the writer avails himself of the colored illustration given of it in *The Garden*, for Jan. 19, 1889, where the slender stems are shown as each bearing a single nodding flower of a martagon form, remarkable for its striking contrast of colors; the base of the perianth segments being of deep purple, their reflexed tips having a pale yellow color. The bulb of this species is further distinguished by the almost blackish purple of its large scales.

Messrs. Low's bulbs were potted in fibrous peat, and were grown in a cool greenhouse. They were very healthy, and how far it will be possible to retain the species on cultivation, remains to be determined:

BY PETER HENDERSON & CO., NEW YORK.

ROSES.—*Mme. Pernet-Ducher* (Hybrid Tea).—Light canary yellow with carmine shadings, a new color in this class. A strong grower, and a rose of much promise.

*Kaiserin Auguste Victoria* (Tea).—Creamy white with yellow shadings; a good thrifty grower and free bloomer. Promises to be a good winter blooming variety.

*La Fraicheur* (Hybrid Tea).—Delicate flush deepening to carmine in the centre, long pointed buds. Very free, gives promise of being a good garden rose.

*Mlle. Bertha Ludi* (Hybrid Poly.).—A fine pot variety, pure white changing to rose; flowers large for its class.

*Mme. Caroline Testout* (Hybrid Tea).—A strong growing, free blooming rose of the La France type. The coloring is deeper than the latter variety, and it is quite distinct from it in habit and foliage.

*Margaret Dickson* (Hybrid Tea).—A massive white hardy rose on the style of *Merveille de Lyon*, but superior to it in form and color. This promises to become a standard sort.

CHIRYSANTHEMUMS. — *Golden Wedding*. — Deep golden yellow, medium to late. This peerless variety adds a new form to the race. The upper petals are gracefully and irregularly overlaid and twisted, the lower ones hang down and twist inward toward the stem, the whole forming a loose globe. Flowers range from five to seven inches across; the foliage and stems are perfect.

*Good Gracious*. — A large pink variety, might be called a pink Kioto; entirely distinct from anything in its color as yet offered.

*Gettysburg*. — A deep crimson variety which sported from Omar with us. The color is superb. In shape it is flat with broad ribbon-like petals.

GERANIUMS. — *Gloire de Plessis*. — A good variety of the Souvenir de Mirande type; clear white, edged vermilion.

*P. Crozy*. — Another year's trial has confirmed our previous good opinion of this fine sort. It has possibilities for development hardly possessed by any other variety.

The above are the really distinct varieties in a host of new sorts which we have been able to test up to the present.

MISCELLANEOUS. — *Ageratum, Large flowering rose*. — This variety forms compact plants about twelve inches high, bearing large trusses of rose-colored flowers in such abundance as to almost cover the plant.

*Aster, White Comet*. — A pure white aster, the flowers being very large, three to four inches across, suggestive of a Japanese chrysanthemum.

*Begonia, Vernon*. — The color of the flowers is a deep scarlet. The foliage is remarkable; at first green, when the plants are about two months old the leaves begin to turn red on the margins, and gradually the whole leaf and stem are colored. Seed sown in spring will produce blooming plants early in the summer. It is also valuable for winter blooming.

*Striped Tuberous-rooted Begonia*. — In this new striped class will be found many handsome and unique combinations of color, such as yellow, orange, scarlet, crimson, etc., all of which will be more or less striped and flecked with some other color.

*Calceolaria, Vesuvius*. — A grand variety, the color being an intense scarlet; the blossoms are of great size, perfectly formed and produced in large compact trusses. It comes perfectly true from seed.

*Pansy, Meteor*. — A splendid new bedding pansy of a novel and most attractive tint, a bright terra cotta color which in the sunlight throws a striking fiery reflex; of good size and perfect form.

*New Guillaud Pinks*. — This new race originated with M. Guillaud, a celebrated French specialist. The Guillaud pinks bloom profusely in the summer and autumn from spring-sown seed, the flowers are large and of perfect shape. This strain contains clear yellow and yellow stripes.



*New Cyclops Pinks.*—These new pinks are the happy result of a long series of crossings of *Dianthus plumarius* and *caryophyllus*, and will produce a new series of colors of great beauty; in addition, each flower is ornamented with a large eye-like zone of velvety blood-red. In cold localities, the plants should be well protected, or better yet kept over in cold frames. They will flower the first season if the seed is sown reasonably early.

*Petunia, Carmen hybrida nana compacta rosea.*—This is very dwarf, not over a foot high; flowers brilliant rose pink with a white throat. It is very effective for beds and equally well adapted for pot culture.

*Poppy, Empress of China.*—An extremely beautiful large poppy, probably the finest single annual variety in cultivation; the flowers measure four to five inches across, are pure satiny white with a distinct feathered margin of scarlet. The plants grow about two feet high. We had a plot of about twenty plants in our trial ground the past season which was a perfect picture when in bloom.

*Dwarf scarlet sabria, Wm. Bedman.*—This forms a compact bush fifteen inches high and two feet across. The flowers are of heavier substance than the older sort and remain in bloom longer on the plants. As a border or vase plant it will be indispensable, and as it will bloom abundantly in pots it will be of the greatest value as a market plant for florists.

*Zinnia elegans grandiflora fl. pl., Gen. Jacqueminot.*—This zinnia belongs to the compact-growing section, the plants are of even branching habit, about two feet high, and the flowers are large, very double and of perfect form. The color is rich, velvety crimson, exactly the shade of the famous Jacq. rose.

*New large flowering rose Candytuft.*—This is without doubt the finest candytuft grown, forming upright, bushy plants about one foot high, bearing immense umbels of exquisite rosy-flesh-colored flowers so abundantly as to hide the plant. For a bed in the garden, it is unusually effective.

*Coleus, Fire Crest.*—This grand red bedding coleus originated with Mr. Wm. Ball, Spuyten Duyvil, N. Y. The habit is close and compact, very short jointed, so that the leaves overlap each other and give the effect of the entire plant as being one mass of brilliant red; exposed to the brightest sunlight this coloring is intensified. It in no way competes with *Verschaffeltii*, in fact, the contrast is so marked that both could be planted together with advantage.

*Heliotrope, Lemoine's giant hybrid.*—These are grand improvements. In our trials of the past season, seed sown in April produced plants eighteen inches to two feet high in July. The clusters of bloom were immense, many measured six inches across. Colors lavender, white and shades of purple. (From seed sown in the greenhouse in March I raised many plants, set these out in open ground middle of

May and they began blooming end of June. Fine flowers, fine colors. Had trusses nine inches across.— W. F.)

*New French marigold, Gilt Edge.*— A large flowering variety of the double dwarf French marigold, differing from it in the more robust growth and in the larger and more perfectly double flowers.

*Giant red mignonette, Guihieneuf's Ruby.*— This new giant red-flowered mignonette is a most beautiful novelty, far superior to all other so-called reds; it has large dense spikes of bright red flowers, the petals and feathery parts being substituted in this variety with large protuberant red stamens of striking effect. The plants are of dwarf, compact, pyramidal habits, stems and branches short and erect. In addition to its merits as a bedding plant, it is of great value for pot culture.

*Variogated Moon Flower.*— The foliage is beautifully marked clear white and vivid green; the flowers are identical with the moon flower.

*Myosotis alpestris Victoria rosea.*— The flowers of this new variety are of a lovely rose color, with the characteristic central double bloom as well as the habit and growth of the well known blue Victoria.

*Myosotis dissitiflora grandiflora.*— This forget-me-not was raised by a specialist in Scotland, where it has received the highest encomiums from their critical gardeners as well as a certificate from the Royal Botanic Society, and is considered by authorities as the finest grown. The flowers are much larger than any other variety.

BY W. ATLEE BURPEE & CO., DOYLESTOWN, PA.

*Platycodon grandiflorum pumilum.*— From Japan, comes quite true from seed; dwarf, compact and of erect growth. Flower large, bright blue. Blooms freely from seed the first year, and is perfectly hardy.

*Giant-flowered Red Mignonette.*— A variety secured in Germany last year, and undoubtedly one of the largest and most showy mignonettes in cultivation. A selection from Machet.

*Marguerite Carnations.*— These have flowered freely with us the first year from seed sown in the open ground. They have also withstood the winter without protection, and flowered again this summer, but not so freely as they did the first season.

*Aster, Queen of Spring.*— Resembles the Queen of the Market aster, but flowers from two to three weeks earlier. Of low dwarf growth, and suited for pot or border plants. Large pure white double flowers with long stems. Fine for cut-flower work.

*Triumph Aster.*— Rich scarlet. It comes perfectly true from seed.

*New Comet Asters.*— Seedlings come true in character, growing twelve to fifteen inches high, and forming regular floral pyramids of large double flowers measuring from three and one-half to four and one-half inches in diameter.

*Begonia Vernon.*—Grows quickly from seed and comes true. It is a valuable bedding variety, as it grows and thrives in the sunniest positions if kept well watered. From seeds sown in February it comes into flower in June, and continues to make a brilliant effect until frost. The foliage is abundant, stiff and glossy, and of a rich green color spotted and margined with bronze.

*Sunset Coleus.*—A bedding strain embracing all the brilliant colorings.

*New Double Corn Flower.*—Fully eighty per cent. come double and semi-double, and are much improved in size and variety.

*Fordhook Hollyhocks.*—All come perfectly double, and there is a large variety of colors.

*Lobelia, Empress Augusta.*—The largest pure white-flowered lobelia in cultivation. It is a sport from Emperor William, and notwithstanding that it has been selected for a number of years, and that even the seeds are white, it will still throw quite a large percentage of blue flowers; but the white plants are so much superior in size of flower to any other white lobelia that it is well worth growing.

*Marigold, Brown Marble.*—Of compact bushy growth, eight inches in height; flowers perfectly double, and of a rich reddish brown color marked with orange.

*Marigold, Orange Ball.*—Similar to the above, but with bright orange flowers.

*Pansy, Rosy Morn.*—A beautiful shade of rosy red with a distinct white edge around each petal, while the three lower petals are blotched with a deep purplish red.

*Pansy, Fire King.*—The three lower petals each have a large blotch of deep brown red, or magenta margined with yellow, while the upper petals are of a bright reddish brown.

*Pansy, Peacock.*—So named because of the lovely ultramarine blue contained in the upper petals of the flower.

*Pansy, Victoria Red.*—A beautiful deep rich red color, far superior in color and size to the Red Ridinghood pansy.

*Petunia, Green Margined.*—The large flowers are of a light rose color with handsomely veined throats, and a broad margin of clear light green.

*Petunia, Compact Veined.*—So compact in growth as to make excellent pot plants without any support. The flowers are light rosy red, handsomely veined.

*Petunia, new dark blue.*—Flowers large and of an intense dark blue color like that of Clematis Jackmanii.

*Polyantha Roses, from seed.*—From seed started in a cool greenhouse in spring this year, the plants are now coming into bloom in our trial ground, and indicate a good range of colors and size of flower from those one-half inch in diameter upwards.

*Torenia Fournieri compacta*.— A dwarf compact variety that comes into bloom early, is doing splendidly for us bedded out from seed sown in March in a cool greenhouse.

*Zinnia, double dwarf Lilliput*.— Fully equal to the tall growing varieties in doubleness and range of colors, while the plants are only about one foot in height when in full flower.

SWEET PEAS.— *Lottie Eckford*.— A grand variety for cut flowers, white ground, shaded and distinctly edged with lavender purple.

*Empress of India*.— Clear rosy pink standards, white wings.

*Monarch*.— Bronzy crimson standards, deep blue wings, very large flowers.

*Senator*.— Large expanded standards, shaded and striped chocolate and cream.

*Mrs. Gladstone*.— Delicate pink, wings blush, very large flowers.

*Captain of the Blues*.— Bright purple blue standards, pale blue wings.

*Miss Hunt*.— Pale carmine, salmon standards, wings soft pink.

*Mrs. Sankey*.— Pure white, large bold flowers.

*Princess Beatrice*.— Fine, clear rose pink, large flowers.

*Ruby Sweet Corn*.— This garden variety would be very ornamental in sub-tropical beds with *Ricinus*, *Arundo*, etc., as the stalks and husks are a very handsome dark red color, while the leaves and tassels are of a lighter red.

*Ricinus spectabilis*.— A magnificent variety, tall growing, with immense light green leaves; very showy in contrast with the dark leaved sorts.

BY V. LEMOINE & SONS, NANCY, FRANCE.

STOVE AND GREENHOUSE PLANTS.— *Paronia intermedia rosea*.— *P. intermedia* is a hybrid between *P. Makoyana* and *P. Vioti*; the sort *rosea* has the same habit, but rosy pink flowers. (Lemoine.)

*Begonia Haageana*.— Introduced through the gardens of Kew; it does not seem to be a true species but shows relation with *B. Scharfliana* and *B. metallica*. Beautiful foliage, large white flowers in enormous cymes, very showy.

*Begonia Schmidtii hybrida rosea*.— (Obtained by us in crossing *B. semperflorens* Vernou or *rubra* with *B. Schmidtii*.) It was at the same time obtained and sold in the neighborhood of Paris as *B. Versaillensis*. Flowers pink, foliage bronze green, very useful for bedding.

Some other hybrids obtained by us crossing *B. semperflorens gigantea* with other sorts are very good plants for winter decorations and for bedding. *B. La France* and *B. diadema* are the best of this section.

A new set of Gesneraceous plants sent out by W. Dauzanvilliers of Rennes, France, the result of crosses between *Isoloma hirsuta* and

Tydeas, contains some grand varieties, very free and vigorous, with large clusters of blooms.

Among the stove and greenhouse ferns the best is *Pteris Victoriæ* sent out by Wm. Bull, London; the pinnules are green variegated with silver. A lot of other good plants were raised in the cretica section. *Pteris cretica serrulata densa*, *Pteris serrulata plumosa*. *Pteris tremula Smithiana* is also a very good plant.

*Asparagus retrofractus arboreus*.—Introduced from a Hungarian garden, is different from the other sorts and begins to be much in favor, as the branches are more slender and the leaves longer than in the previous sort.

*Calceolaria Triomphe de Verricres*.—Raised by Vilmorin Andrieux, from crosses of *C. rugosa*, is a good bedder.

In callas we have the form with very large spathes *C. æthiopica grandiflora*, introduced as we believe from Madeira. We have also a dwarf form named Little Gem. It is now much spoken of. *Calla Elliottiana* with yellow spathes, is the result of a cross between *C. æthiopica* and *C. albomaculata*. The entire stock of it was sold at a high price in England.

*Caryopteri Mastacanthus* is not a new plant, but begins to reappear in the gardens. It is a verbenacious plant with a profusion of blue flowers produced in succession till the frost kills it down.

We have a new set of hybrid crassulas, raised by M. Fouchard, of Orleans, in crossing *C. jasminea* and *C. coccinea*. The six varieties obtained are good market plants, covered with large corymbs of blooms, ranging from white to pink and carmine.

We shall not speak of *Nicotiana colossea*, as it is sufficiently known now.

Among the cannas with large flowers Mme. Crozy is still the best, with Alphonse Bouvier (large crimson-scarlet flowers) and Eldorado, a sort of our raising, the best yellow.

The fuchsias are still progressing slowly; in the sorts of last year's we shall mention among the best, Buffon, Ulysse Trelat, Constancy, Mrs. Charles Daniels, Alphonse Karr, Celine Montaland, etc. In pelargoniums, show zonal and peltatum, there is so large a number of novelties that they deserve a special study.

*Primula Poissoni* is nearly hardy; our plants resisted the winter in open ground but were killed by late frosts. It is a beautiful sort introduced from South China by the Abbé Delavay and grown in the Paris Museum. It is much in the way of *P. Japonica*, but with large blooms, and putting forth a succession of new scapes throughout the summer.

Among other perpetual flowering sort is *P. Forbesi*, introduced by Vilmorin Andrieux. It has slender stems and little pink flowers borne in quantity.

Among hardy shrubs it is not necessary to speak of *Deutzia parvi-*

flora, well known in America ; *Genista scoparia Andreana* is also much used ; the hybrid mock orange, *Philadelphus Lemoinei* and *Lemoinei erectus*, are much praised by amateurs.

The best novelties in double lilacs are the double white *Mme. Lemoine*, and the double pink *Belle de Nancy*.

A beautiful shrubby spiræa was raised by us from a cross between *Spiræa crispifolia* (*bullata*) and *Spiræa Bumalda* ; as it retained much of the habit of the latter it was called *Spiræa Bumalda ruberrima*. The flowers are larger than those of both parents, and of a darker carmine.

Among hardy herbaceous plants, *Clematis Davidiana* is sufficiently known.

*Dodecatheon Lemoinei* and *D. Lemoinei robustum* are the first of a series of hybrids between *D. integrifolium* (*splendens*) and *D. Jaffrayanum*, where are to be found vigorous plants carrying many flowers of the brightest carmine.

*Hoteia Japonica compacta multiflora*, and its ally, *Spiræa astilboides floribunda*, much superior to their respective types are now exclusively grown for forcing and for market sale. *H. Japonica* and *Spiræa astilboides* will soon be discarded in their favor.

In chrysanthemums we have a new series of early flowering sort, raised by Delaux, of Toulouse, so that we shall have chrysanthemum blooms from June till January.

In hardy bulbs *Crocoshia aurea imperialis* is a grand plant with flowers and flower stalks twice as large as those of *Crocoshia aurea*. It is a handsome sight.

Our new sorts of *Gladiolus Lemoinei* and *Gladiolus Nanceianus* are always improving. They would deserve a special study. You will understand that their eulogy cannot be made by us.

In tuberous begonias the new sweet-scented *Baumanni*, good for bedding without shade, as well as *B. fulgens* from the same country (*Bolivia*) were introduced by us, and we shall not speak of them.

BY A. BLANC, PHILADELPHIA.

*Amorphophallus campanulata*, which has been grown for some years at the Royal Gardens, Kew, where its enormous flowers attracted great attention. The foliage is similar to that of *A. Rivieri*, but much lighter in color, and so is the leaf stalk, which unlike *A. Rivieri*, is rough. Unfortunately the bulb is very difficult to keep over winter unless retained in the pot in which it is grown.

*Bravoa geminiflora*.—A Mexican bulb with a brilliant future. It is seldom that we have seen such a gem in any garden. Our first trial of it was crowned with success. The flower spikes are borne in profusion, each loaded with a mass of scarlet flowers of great brilliancy. It is greatly superior to the well-known *Bessera*, and will no doubt find a place among the Mexican gems that are now so popular, being more hardy than most bulbs of that country.

*Chlidanthus fragrans*.—We fail to find this in any American catalogue, yet it is well known in Europe. As the name implies, it is indeed a delicate flower as well as delicious in perfume. In July and August the bulbs produce clusters of deep, canary-yellow flowers of good size.

*Ferraria undulata*.—If one depends on European dealers for a true stock of this, he will find himself sorely puzzled, and in the possession of a varied collection of tigridias, the latter being usually catalogued there as *Ferraria*. Yet the bulb of the true *Ferraria undulata* is entirely distinct. It is perhaps the best keeping bulb I ever handled. The one sent herewith has been out of the soil for nearly two years, and is as fresh now as ever. The flowers have many characteristics of the tigridias, but are produced in much greater abundance; and with me eighty per cent. of the bulbs have proved hardy.

*Panocratum Amancees*.—A yellow flowering panocratum, which, though yet extremely scarce, will no doubt be highly appreciated by amateurs, as well as the so-called Blue Amaryllis or Griffina hyacinthiana, which though somewhat of a shy bloomer is certainly a most attractive flower, and now that they can be obtained in larger quantities may certainly be recommended to the trade in general.

*Boemaria oculata* is another South American bulb cultivated for years in England with great success, proving perfectly hardy there. Here in the greenhouse it blooms beautifully, its long pendant branches covered with rich dark foliage and deep crimson campanulate flowers. It will no doubt be hardy in favorable localities.

*Bœmetria Columellaris*.—A new bulb from the Cape of Good Hope with curious yellow flowers, excellent for damp spots.

*Arums* are now attracting much attention. The Yellow Calla (*Richardia hastata*), the Black Calla (*Arum Sanctum*, *A. Palestinum*), having created a demand for others. Among these perhaps the finest are *Arum discordes spectabilis* and *Arum Syriacum*.

*Sauromatum guttatum*, a Himalayan bulb which we imported in large quantities is bound to become popular. Its elegant foliage produced in succession from early spring until frost is certainly quite ornamental, and while some consider the flower of pleasant odor—to which we cannot agree—all will say that they are decidedly curious and interesting. The bulbs are excellent keepers, remaining perfect for six or eight months, and while it has been considered tender, the bulbs survived our Philadelphia winter perfectly.

*Polyanthus maculata*.—A tuberous-rooted plant discovered more than forty years ago on the Mexican border and supposed to be an *Agave* (*Agave maculata*), but which I fail to find mentioned in Mr. Watson's monograph of agaves.

In growth it resembles an agave as well as a tuberose, having broad leaves, all of which are copiously marked with dark brown spots. On a stalk two to four feet high it produces a large number of greenish yellow flowers. I have never seen it offered here or in Europe.

*Veltheimia glauca*.—A bulb that deserves more attention for winter blooming, the flower spikes remaining perfect for many weeks.

Among the other bulbs of recent introduction in this country we might mention, *Bulbine pugioniformis*, *Lapeyrousa corymbosa*, *Synnotia bicolor*, *Wurmbea purpurea*.

*Tigridia grandiflora rosea*.—A delicate pink flowering tigridia, which will no doubt become as popular as the white. We also hope to bring out a striped sort, a purple flowering variety, quite distinct from the old sort, which it was almost impossible to keep.

Among the cacti, strange to say, there are not so many new varieties to be mentioned, all those that are new to this country having been known in Europe for years. New importations should therefore scarcely be considered. From these, however, we should except:—

*Epiphyllum Russellianum Gaertneri*, sometimes called E. Makoyi.—As soon as the floral trade becomes familiar with this plant and it becomes more plentiful all prejudice against it as a cactus will vanish. It is of remarkably rapid growth if grafted, and after being kept in a cool house in the winter, can be brought in bloom at any time when wanted in three weeks, almost to a day. At Easter time it will be found especially valuable.

Its merits are so well appreciated in Europe that several high awards have been conferred upon it.

In shape of flowers and color it is entirely distinct from any other epiphyllum in cultivation.

*Echinocereus candicans*, called the Rainbow Cactus.—No cactus has ever created the sensation that this one has. This is owing perhaps to the fact that it is a most valuable sort offered at a popular price. Plants five to six inches high are sometimes crowned with ten to fifteen flowers opened at one time, each crowding the other, so that the plant is entirely hidden from sight.

*Cereus Childsi*.—A bold upright variety of magnificent growth blooming at night. The flowers are immense, of a delicate pink, and of delicious fragrance.

*Echinocactus Grusoni*.—The Golden Cactus is decidedly the finest cactus in existence.

*Cereus flagelliformis cristata*.—A curiosity of first-class merit, pleasing the cactus amateur as well as the florist. Wonders may be expected of it in a short time.

*Mamillaria Costa Rica*.—Yet new, and only offered at private sale. A most interesting plant with golden spines. The tubercles are so densely covered with a pure white cottony substance as to almost entirely hide them. Flowers still unknown.

*Euphorbia grandicornis* we consider the most valuable and the handsomest of all the euphorbias. Its bright light green color, its formidable dove-colored spines and peculiar tier-like growth all combine to make it



attractive. Plants only six inches high are remarkable as large specimens measuring six feet. Flowers small, yellow.

BY J. BACKHOUSE & SON, YORK, ENGLAND.

ORCHIDS.—*Cattleya gigas*, superb crimson variety; *Lælia Gottoiana*. (We may say that the two first named plants have been bespoke for your country, and will pass into the collection of Mr. Ames, North Easton, Mass.) *Dendrobium nobile magnificum*; *Odontoglossum Harryanum*, var. *flavescens*.

FERNS.—*Adiantum capillus veneris*, var. *densum*; *Asplenium Magellanicum*; *Gleichenia rupestris grandifolia*; *Trichomanes Luschnatianum*; *Trichomanes prelongum*; *Trichomanes pulchrum*.

GREENHOUSE PLANTS.—*Asparagus deflexus*, most elegant for basket or scroll work; *Rogiera gratissima superba*.

HARDY SHRUBS.—*Genista scoparia Andreana*, most handsome. (Has been grown for a year or two in this country, and gives very great satisfaction, but we have not yet found out how hardy it is.—W. F.) *Genista scoparia grandiflora*, large flowers in long pendant racemes. (Hardier and more beautiful than the type.—W. F.)

PERENNIAL, OR HERBACEOUS PLANTS.—*Aster alpinus rosea*; *Aster*, Purity; *Campanula garganica alba*; *Campanula persicifolia grandiflora*; *Campanula persicifolia*, Backhouse's variety; *Gaura Lindheimeri*. (In common cultivation in this country for a good many years.—W. F.) *Montbretia imperialis*; *Primula Poissoni* (Franchet); *Saponaria ocymoides splendidissima*; *Centaurea Tournefortii*.

BY HERR MAX LEICHTLIN, BADEN-BADEN, GERMANY.

*Anemone fulgens Leichtlinii*.—Requires protection. Early blooming, February to April, and has enormous white belted, brilliant scarlet flowers.

*Colchicum Sibthorpii*.—Large, showy and beautifully tessellated. It surpasses *C. speciosum* in size of bloom and vivid color.

*Crocus speciosus Aitchisonii*.—A remarkably beautiful large-flowered variety from Persia.

*Fritillaria imperialis gigantea*.

*Fritillaria majus*.

*Fritillaria Walujewi*.—A very showy and interesting species; flowers blood red inside, silvery grey outside.

*Galanthus Fosteri*.

*Galanthus Elvesi globosus*.

*Galanthus nivalis Octobrensis*.—Blooms in October.

It wants serious consideration to determine what plants will suit the American trade, because we Europeans have but imperfect impressions from what we are told in the American papers.

The following plants, however, will in my opinion become standard sorts in the trade :—

*Iris Bakeriana*.

*Iris histrioides*.—Earlier, more showy and larger blooming than *I. reticulata*. Flowers, ultramarine blue.

*Iris reticulata Melusine*.—A showy flower, and an improvement on *I. reticulata cœrulea*.

*Iris reticulata majus*.—Broader segments and larger flowers than the type.

*Ixiolirion macranthum*.—In brightness of color and large size of its flowers this far surpasses *I. tartaricum*.

*Ixiolirion Sintenisii*.—Quite as good as *I. macranthum*; color slightly paler, markings more visible.

*Muscari Freynianum*.—Quite new, and a lovely plant. The large spikes glistening torquoise blue.

*Muscari polyanthum*.—Quite new. The spikes are the largest in the whole family; deep shining blue.

*Tulipa Leichtlinii*.—Flowers sulphur yellow and coral red.

*Gazania pygmaea*.—White flowers.

*Gerbera plantaginea*.—White flowers.

BY HENRY A. DREER, PHILADELPHIA.

*New Double White Daisy, Snow Crest*.—An entirely distinct variety, and a great improvement on all existing sorts. Its habit of growth and size of flowers in comparison with older varieties are gigantic. The flowers, which are borne on stout, stiff stems from six to ten inches long, are of the purest white and full to the centre when fully developed. They rise to a conical or sugar-loaf form, and well grown specimens will cover a silver dollar. As a plant for cut flowers it is invaluable.

*Fuchsia triphylla*.—An entirely distinct species, somewhat resembling the *fulgens* type, but with much smaller flowers of a brilliant orange scarlet, borne closely together on the ends of the branches in such a manner as to remind one of a small spray of *Bouvardias*. The foliage also is quite distinct, being of a bronzy purple color.

*Fern, Pteris tremula var. Smithiana*.—A crested form of *Pteris tremula*. This plant forms large deep green fronds, with the ends of the pinnæ crested and tasseled, forming semi-pendant tufts. The whole plant presents an unique but graceful appearance, and will undoubtedly make a useful exhibition as well as florist's fern.

IVY-LEAVED GERANIUMS. — Including newer varieties as well as introductions four or five years old, but all of exceptional merit :—

*Flambeau*.—Flowers of enormous size, of a rosy scarlet color and a strong grower.

*Robert Owen*.—Rose red, very double and perfect in shape.

*Souv. de Chas. Turner.*—One of the most desirable varieties, producing trusses six inches across and two inches in diameter; of a deep pink shade, feathered maroon in the upper petals.

*Alice Crousse.*—Deep magenta; flowers very large and free.

*P. Crozy.*—A most distinct and pleasing variety, being the nearest approach to a scarlet yet introduced; habit of plant very dwarf and compact, and almost as free flowering as a zonale.

*Clematis paniculata.*—An old species that is but little known, which will undoubtedly take a leading place among the hardy climbers in the near future.

*Allamanda Williamsii.*—Entirely distinct from other varieties in habit of growth, it being quite dwarf and in no way resembling a climber, but forming a compact bush with trusses of bloom at every point. The flowers are three and one-half to four and one-half inches in diameter, of a rich yet delicate tint of yellow.

*Hardy garden pink, Her Majesty.*—An immense improvement on the popular Mrs. Simkins or Snow. The flowers are pure white, as large as a carnation, and very free.

BY JOHN SAUL, WASHINGTON CITY, D. C.

MISCELLANEOUS NEW PLANTS.—*Allamanda Williamsii.*—This new variety sent out by B. S. Williams & Son, of London, is of dwarf compact growth and very floriferous; flowers a delicate yellow.

*Streptocarpus.*—Some beautiful hybrids of this class have been raised in England. They vary much in color from white to crimson and purple; finely marked. They are of easy culture.

*Anthuriums.*—Some very fine crosses have been effected among this class of plants in the United States Botanic Garden in this city. Reynoldsiana is among the lot.

*Caladiums.*—Brazil has sent us of late our finest caladiums, much finer than any from the continent of Europe, which formerly supplied us. The delicacy and transparency of foliage is lovely. The number of varieties are very numerous.

*Gladiolus Nanceianus.*—This new class of Monsieur Lemoine has very showy flowers, large; colors rich. Among the most desirable are the following: A. de la Devansage, Comte Horace de Chirsene, Chas. Baltet, Dr. H. P. Walcott, Kleber, Le Grand Carnot, Harry Veitch, Monsieur Hardy, Massena, President Carnot and Professor Sargent.

*Pteris Victoria.*—This distinct and beautiful fern is now becoming well known. It will be largely grown by florists.

*Ixora macrothyrsa (Duffii).*—By no means new, yet but little grown. The trusses are immense, as large as a hydrangea. All the ixoras are beautiful, but neglected.

*Hypericum Moserianum.*—A cross between *H. calycinum* and *H. patulum*, flowers profusely and large golden yellow; one of the best dwarf hardy shrubs introduced for years.

*Kniphofia (Tritomas).*—Flame or torch flowers. Here is a family of plants of great merit. They are fine as single specimens, grand in clumps and masses, throwing up their magnificent spikes of flowers during summer and fall. Are nearly hardy in this latitude, yet comparatively little grown. Henry Cannell ; Pfitzeri ; V. Lemoine ; Jno. Benary ; Nobilis ; Sandersii, etc., are very fine and free.

*Habrothamnus Newellii.*—This species has crimson flowers, and like the older species make handsome specimens for the greenhouse.

*Saponaria Japonica.*—A very useful hardy perennial with double flowers.

*Iris pallida dalmatica.*—Not new but a grand iris that I can recommend with confidence to lovers of hardy plants. It is robust, vigorous, and a free bloomer.

*Doronicum Draytoniensis.*—By no means common though not new. Perfectly hardy : blooms early and profusely in spring ; flowers golden yellow.

BY DENYS ZIRNGIEBEL, NEEDHAM, MASS,

*Aster, early dwarf, The Parisian,* is without question the earliest in cultivation, and the only aster that will stand forcing, our plants blooming in eight weeks from the seed. Grown on a bench planted six inches apart they will average about five or six flowers only to the plant.

*Aster, Candelabrum.*—An odd growing variety, dwarf, close compact grower, with large flowers of red, pink and white shades. Owing to its compact habit and lasting properties, will make a capital variety for massing.

*Aster, Black Purple.*—A novel color in asters, of the pompone class, and the darkest grown. Of no special interest to florists.

*Calendula grandiflora nana,* a splendid variety and superior to all, either for cut flowers or plants for market. A dwarf, compact grower and forces well. Large, double, deep orange flowers.

*Candytuft, Empress.*—Good enough for massing in beds, but rather dwarf for cut flowers, the also new Dobbie's Spiral being superior in that respect, as well as the Giant Rocket, which is largely used in the Boston market.

*Celosia Thompsoni* or *Triomphe de l'Exposition,* is a very showy annual. We are inclined to think the handsome plumes will become useful as cut flowers, as they are very showy. Rather late, however for spring sales.

*New early dwarf white Stock.*—A capital variety for florists, and best of all for inside work, coming quickly in bloom, and having large trusses of compact flowers. As an intermediate crop, will prove very handy to florists in case of failure of violets, etc., a well paying crop producing two-thirds double flowers.

*Golden Fleece* is an interesting variety of the above stock, of a pleasing shade of yellow, and of the same habit as the preceding.

PANSIES.—We do not have to add anything to our report of last season. The two new varieties, Cardinal and Meteor are small in size, and the bright red shades are the same as prevalent in the Bugnot pansies which are three times as large. By the way, we are trying with Mr. Bugnot, the crossing of his strains with the Trimardeau race, which is probably the hardiest of all pansies, and we are glad to report some interesting results, which will render those splendid strains more popular still.

*Reseda odorata, Golden Queen.*—A rather pretty shade of yellow, and very fragrant. A proper selection will be necessary however to compete with the large flowered varieties in the market now.

*Zinnia, new black red colored.*—Quite a handsome shade, and the darkest yet attained in zinnias. As zinnias are getting in favor as cut flowers it will be valuable as a florist's flower.

BY R. LINDSAY, CURATOR, ROYAL BOTANIC GARDENS, EDINBURGH, SCOTLAND.

I scarcely ever remember a year when so few plant novelties have been introduced into this country, excepting orchids, which have been rather numerous. I refer more particularly to hardy perennials. I may mention the names of a few plants, which though not new, are not sufficiently known. They are all hardy perennials, and real good things.

*Aciphylla squarrosa.*—New Zealand spear grass. An excellent yucca-like, sharp-leaved plant, most useful for rockeries.

*Aster alpinus speciosus.*—Flowers much larger and showier than the normal type.

*Celmisia spectabilis.*—A New Zealand composite of great merit, having large, star-like pure white flowers.

*Clintonia Andrewsiana.*—A North American liliaceous plant, having red flowers succeeded by torquoise berries; foliage also good.

*Pentstemon Menziesii.*—From the Rocky Mountains, the best shrubby pentstemon that I know.

*Veronica Fairfieldii.*—New Zealand. Very fine like *V. hulkeana*.

*Veronica linifolia.*—New Zealand. One of the most distinct of the genus.

*Heuchera sanguinea.*

*Spiræa Kamschatica.*

*Polygonum sphærostachyum.*

*Primula Poissoni.*—A new species from Yunnan, China, produces whorls of flowers somewhat like *P. Japonica*, but larger and dark purple in color. A fine distinct plant, but not very hardy.

*Primula imperialis.*—From mountains in Java; also produces whorled spikes of flowers of a rich golden yellow color. An excellent plant, but requires to be grown in a frame or greenhouse.

*Tufted Pansy, Olivette.*—A new race of bedding plants raised by Dr. Stuart, of Chirnside, Berwickshire. *Viola cornuta* is the origin of this race, a large number of which are now on trial. The best I have seen are Olivette and Sylvia. The former pure white, small flowered; the latter creamy white and large flowered. The character distinguishing them of all others is their strong delicious perfume. The fine odor prevails throughout the whole race. The colors are as varied as in ordinary pansies.

*Erica Stuarti.*—A new heath of great merit botanically, and of no small value horticulturally. Found by Dr. Stuart in a wild state in Connemara, Ireland, during an excursion with the Scottish Alpine Botanical Club. It is unlike any other of our native heaths; the mouth of the corolla is open and reflexed slightly. The color is rosy pink, and the plant is very floriferous, probably a sport or hybrid from *Erica Mackayana*, which abounds in the district where it was found.

*Olearia insignis.*—A native of New Zealand, the finest of the genus, but unfortunately tender in this country. It has large, handsome woolly foliage, shrubby habit, and produces stiff, erect flowers, pure white about two inches wide.

*Campanula persicifolia grandiflora.*—An excellent bell flower. Flowers pure white, very large, twice the size of the ordinary *persicifolia*.

*Cytisus Andreanus.*—A fine dark-flowered variety of the common brown; very handsome and unique.

BY THOMAS S. WARE, HALE FARM NURSERIES, TOTTENHAM, LONDON, ENGLAND.

Below is a list of new and rare plants not yet in commerce, which are not enumerated in my catalogues, and of which I have a very limited stock. Of the white *Papaver orientale* I have a single plant:—

*Papaver orientale alba*; *Armeria cephalotes alba*; *Chrysanthemum leucanthemum semi-duplex*; *Sparaxis William I.*; *Chionodoxa Allenii*; *Lilium Lowii*; *Carnation, Pride of Great Britian*; *Carnation, Horace Dan*; *Genista Andreana*.

BY EDWARD GILLET, SOUTHWICK, MASS.

A double flowered *Lilium superbum*, some beautiful hybrid gentians and *Tigridia pulchella* are among the most desirable new plants that have recently come under my hands. This new *tigridia* is called *T. Patseuaro* in my catalogue, but Dr. Robinson, of Cambridge, now calls it *T. pulchella*.

BY MRS. H. H. BERGER, SAN FRANCISCO, CAL.

JAPANESE TREE PÆONIAS.—The new single and semi-double Japanese tree pæonias are exceedingly showy; their flowers are very large and artistically beautiful, and they have a loveliness peculiarly their own and without a grain of coarseness. Last year we got three in

particular that are extraordinary in size and beauty of blossoms. One is semi-double, white with pink shading; another is an extra large double rose colored variety, and the third has bright scarlet unusually large flowers and filled petals.

AWARDS BY THE COMMITTEE ON FLOWERS, 1891.

PLANTS AND FLOWERS HONORED BY THE MASSACHUSETTS HORTICULTURAL SOCIETY,  
BY MR. ROBERT MANNING, SECRETARY.

SILVER MEDALS at the Chrysanthemum show, November 10-13, 1891. — Pitcher & Manda, seedling chrysanthemum, Harry May. Henry A. Gane, seedling chrysanthemum, Mrs. Jerome Jones.

FIRST CLASS CERTIFICATE OF MERIT.—March 31, James Comley, seedling rose, Oakmont. June 27, John C. Hovey, seedling pansy, Milton Hill. August 1, H. H. Hunnewell, *Lilium Wallichianum superbum*. January 31, Arthur H. Fewkes, *Clivia miniata*, John L. Flanders. March 31, John H. Pond, seedling carnation, Golden Triumph. November 10, T. D. Hatfield, seedling chrysanthemum, Walter Hunnewell. November 10, James Wheeler, seedling chrysanthemum, Joseph H. White.

HONORABLE MENTION. — January 31, Richard T. Lombard, new yellow carnation, Golden Triumph. February 7, John Fottler, Jr., new *tropæolum*. February 7, Jackson Dawson, new lily from Formosa. February 28, H. H. Hunnewell, *Phalenopsis Stuartiana*. March 31, J. C. Chambers, Toughkenamon, Pa., new carnation, Grace Darling. August 1, William E. Endicott, seedling gladiolus, Lemoinei hybrid. August 15, Dr. C. G. Weld, seedling gladiolus, Dr. C. G. Weld. September 1, James S. Cowles, Newport, R. I., chrysanthemum, Golden Fleece. September 1, Joseph Breck & Sons, *Gloxinia Hetherset* hybrids. November 10, John H. Dunlop, Toronto, Canada, new rose, Toronto. November 10, Sewall Fisher, seedling carnation, No. 113. November 10, C. D. Kingman, seedling chrysanthemums, Eglantine and Kildare. November 10, Pitcher & Manda, Short Hills, N. J., seedling chrysanthemum, Annie Manda. November 10, Norris F. Comley, seedling chrysanthemum, No. 21. November 10, T. D. Hatfield, seedling chrysanthemums of 1891. November 10, George B. Gill, seedling chrysanthemum, Adeline Bradbury. November 10, Jacob Eaton, Jr., seedling chrysanthemum.

AWARDS BY THE COMMITTEE ON PLANTS, 1891.

SILVER MEDALS, Spring Exhibition.— March 31, H. H. Hunnewell, *Amaryllis vittata*. May 9, Rea Brothers, *Spiræa Japonica grandiflora* and *Spiræa astilboides*. June 26, David Allan, *Odontoglossum vexillarium Harrisium*. September 1-4, George McWilliam, *Alocasia Sanderiana*. September 1-4, Pitcher & Manda, Short Hills, N. J., *Pteris*

Victoria. November 3-6, George McWilliam, *Dendrobium formosum giganteum*.

FIRST CLASS CERTIFICATE OF MERIT.— March 7, Jackson Dawson, hybrid seedling rose, a cross between multiflora and Gen. Jacqueminot, a rapid grower and hardy. March 7, Botanic Garden of Harvard University, *Astilbe Japonica grandiflora*. June 6, David Allan, *Odontoglossum vexillarium Allanianum*. June 6, Pitcher & Manda, Short Hills, N. J., hybrid *Cypripedium Brownii* and hybrid *Authurium No. 1*. September 1-4, Pitcher & Manda, *Dracæna argentea striata*. September 26, Charles Storer, *Aërides Sanderiana*.

HONORABLE MENTION.— March 31, Lewis H. Farlow, *Cattleya chrysotoxa*.

#### AWARDS BY THE COMMITTEE ON FLOWERS, 1892.

SILVER MEDAL.— June 10, 11, James Comley, seedling *Rhododendron*, Mrs. Grover Cleveland.

FIRST CLASS CERTIFICATE OF MERIT. — January 9, Thomas Greaves, *Cypripedium insigne* var. *Gravesianum*. March 12, Jackson Dawson, new hybrid rose, *rugosa* and *Jacqueminot*. March 22, 25, Siebrecht & Wadley, New York, seedling *Nepenthes*. June 10, 11, Thomas C. Thurlow, *Fagus purpurea tricolor*. June 22, 23, Jackson Dawson, seedling *Philadelphus*.

HONORABLE MENTION. — March 22-25, Sewall Fisher, seedling carnation, (rich pink). March 22, 25, Joseph Tailby, seedling carnations.

#### AWARDS BY THE COMMITTEE ON PLANTS, 1892.

SILVER MEDAL.— January 2, John L. Gardner, *Cattleya Percivalianum*.

FIRST CLASS CERTIFICATES OF MERIT. — January 16, Joseph Tailby, new dwarf *Calla*. March 31, E. W. Gilmore, variety of *Odontoglossum Pescatorea*, spotted and shaded. March 31, Edward Butler, *Odontoglossum nebulosum*. May 21 John L. Gardner, *Cattleya Reineckiana*. July 2, John L. Gardner, *Thunia Veitchii*.

#### THE QUESTION BOX.

The PRESIDENT: The Chair calls attention to a number of questions which have accumulated in the question box during the sessions of the Convention. The Chair suggests that it would be well to have some of them answered at this time. If there is no objection the question box will be taken up.

Question number one :—“ Is there more than one strain of *Ampelopsis Veitchii*? If not, what causes such a great difference in the shape and size of the foliage? ”



Mr. P. O'MARA, of Jersey City, N. J., responded: I believe there is only one strain of *Ampelopsis Veitchi*. The apparent differences are only the natural variations which may be expected from most plants when raised from seed. In support of this view I desire to say, that in my experience, plants raised from cuttings, even when taken from seed plants which show variations, in nearly all cases appear to be of one type. I know there is a popular belief that there are several strains of *Ampelopsis Veitchi*; and in many cases I have known people to confound the true *Ampelopsis Veitchi* with the *Ampelopsis quinquefolia*, because the leaves were separated into three parts so that they were really trifoliolate, and did not have the tricuspid form, which is the established type, *Ampelopsis tricuspidata* being a synonym for *Ampelopsis Veitchi*. The young plants from seed in nearly every case have the trifoliolate shape, and to this fact alone, I believe, is due the apparent contradiction. As the plants attain age, even when they are grown from seed, they invariably assume the tricuspid form. When grown from cuttings they always retain it. There are, I know, various shades of color in the vines, but I believe this is attributable mainly to local conditions of soil and other local causes.

Question number two:—"What is the best method of destroying slugs in greenhouses?"

Mr. W. A. MANDA, of Short Hills, N. J., responded: The best method I know of is to catch them. (Merriment.) Seriously, the best thing to do is to take young lettuce leaves or cabbage leaves, and spread them among the plants. If you collect those leaves in the morning you will find them all covered with snails, which can easily be destroyed. That is the best way I know of for getting rid of slugs.

Mr. J. M. JORDAN, of St. Louis, Mo.: Another way to get rid of slugs is by using salt under the benches or in any place where you can scatter it. If you are very much bothered that will drive them away. Wood ashes may also be used if you have an abundance of them and it is convenient to scatter them around the benches. Slugs are often very destructive among carnations, and as Mr. Manda states, cabbage or lettuce leaves will prove effective there.

If you have some old rotten wood or powdered benches that have rotted down, the slugs will go for that. They will be in hiding there and cannot readily be caught. To prevent them coming around through your houses, I think there is nothing so useful as salt. Often they come into the greenhouse from the outside where they have been propagated. By using salt early in the winter you will often prevent the entrance of the slugs.

Question number three.—"What is the national flower of Canada? Canadian please answer."

No response.

Question number four.—“Has any one found an effective remedy for eradicating grasshoppers from the greenhouse?”

Mr. W. K. HARRIS, of Philadelphia, responded: I know of no other way than to catch them.

Question number five.—“How should putty bulbs be kept, after being used, from one season to another?”

Mr. J. D. CARMODY, of Evansville, Ind., responded: Mr. President, I think it is wise for you to select me to answer that, as I am a sort of a “putty” man, having been a painter before I was a florist.

A putty bulb can be kept best by being cleaned after using. Wash it out with either coal oil or turpentine thoroughly and lay it away. If a person is too lazy to do that, let him throw it into a bucket of water and set it somewhere where the water will not evaporate. See that it is kept covered with water all the time, and it will not harden; but the better way is to clean the putty bulbs after using.

Question number six.—“What are the five most valuable plants for cold frame culture suitable for spring sales for bedding purposes?”

Mr. A. WALDBART, of St. Louis, Mo., responded: I should name the pansy first. The English daisy would be another; then the myosotis or forget-me-not, ten week stock and perennial iberis. I might also mention English wall-flower and lark-spurs.

The PRESIDENT remarked that the question was a most important one, and he invited additional responses.

Mr. P. O'MARA, of Jersey City, N. J.: I would recommend as the five, pansies, daisies, (*Bellis perennis*), forget-me-nots, cowslips and auriculas.

Mr. EUGENE H. MICHEL, of St. Louis, Mo.: *Oenothera glauca* is a yellow flowering plant of that class which is often overlooked. It blooms longer than most of the other varieties that have been mentioned, and is a perfect mass of yellow flowers. Of course *Helianthus multifloris* must not be overlooked as a bedding plant. There is also another *oenothera*, having white flowers and very much of the same growth as *glauca*, which I have found very pretty and desirable. *Achillea*, the Pearl, is a plant that is becoming very popular for pot sales. It is one of those plants which if allowed to grow in a four or five-inch pot during the summer, and then stored in a cold frame over winter will make a large plant early in the spring, blooming before *Pyrethrum*, the Gem. The *Helianthus multifloris* is not so much sought for as a pot plant, but is a very good bedding plant. It blooms longer than the pansies, forget-me-nots and daisies which have already been mentioned.

Question number seven.—“What proportion of ground bone is advised as beneficial where potting soil is composed of rotted sods and cow manure?”

Mr. WM. FRASER, of Baltimore, Md.: No definite answer can be given, as it is not stated what plants are intended to be grown in that soil. What might be beneficial for one plant would be death to another.

Question number eight.—“What benefit is it to the trade to keep store business open on the Sabbath?”

Mr. M. H. NORTON, of Boston, Mass.: As far as we are concerned, our store business on the Sabbath is very limited, our store being open about one hour in the morning. We usually have church flowers to deliver, intended for the altar or pulpit; these being for standing orders. When little orders are wanted, of course they cannot be delivered, as the store is kept open for only one special purpose. In point of fact, the store is not open, as the curtains are drawn and the doors almost barred. We do not advertise to keep open. In other sections of the city, stores are open for probably half the day.

The PRESIDENT. The question is as to what benefit is to be derived from it. That is the point.

Mr. S. V. SMITH, of Baltimore, Md.: For my part, I do not think there can be any benefit from keeping open on the Sabbath. My experience is that, after a little time, when people know that they cannot get their flowers on Sunday, they will come for them on Saturday. I deliver sometimes on Sunday morning where people will not have their orders on Saturday night.

Mr. R. J. MENDENHALL, of Minneapolis, Minn.: I do not find it to be of any benefit whatever to open on Sunday.

Question number nine.—“Can there be an established rule of the Society of American Florists as to working hours in stores?”

Mr. C. B. WHITNALL, of Milwaukee, responded: I do not think it possible, and, if it were, I should not think it advisable. I do not think anything ought to be attempted in a Society of this kind, that would hinder the proper bringing out of the individuality of any member. We all possibly have different views and it is probably beneficial to advocate them and make converts, if they are good; but to lay down rules here and expect all members to live up to them, in their private business, is wholly wrong I think.

Question number ten.—“What is the best method of growing *Amaryllis aurica platypetala* to have it bloom for the holidays?”

Mr. F. L. HARRIS, of Wellesley, Mass., responded as follows :—

The method I follow for the culture of *hippeastrums* syn. *amaryllis* is so different from that adopted by those who force them so as to have them in bloom early and especially about Easter, that it is questionable if I can say anything that may be of general utility, yet any system that will prolong the blooming season of this gorgeous and attractive plant now so universally grown for effect. may prove interesting and valuable.

It is well known that very many sorts seldom lose all their foliage, and therefore water should never be altogether withheld; this is so, more particularly with *H. reticulatum*, *solandriiflorum*, *vittatum* and some others. Young bulbs when just starting into growth require repotting so as to get them as vigorous as possible in short time.

In repotting all the old soil should be carefully removed and good, fresh loam, charcoal and bones well distributed through the roots.

When several large bulbs are in an eight or ten inch pot don't separate them, a good top dressing is all that is required, and specimens may be grown of *H. vittata* with twenty spikes and over fifty blooms open at one time. *H. reticulatum* requires somewhat different treatment, specimens after blooming are given pretty generous culture until the month of October, when the pans are placed underneath other foliage, such as roses, etc., and depend during the winter season only on the water from the syringe. A pan was exhibited at the rooms of the Massachusetts Horticultural Society, in August last, with one hundred and twenty blooms. They really do not require a temperature of over 45 degrees while at rest—what I mean by rest is when the bulb is thoroughly ripened—for blooms cannot be obtained in any other way.

When growing vigorously it is surprising the quantity of water required with liquid manure three or four times a week.

Horse droppings I find makes the best liquid, and when it is the color of good old port it is just right.

Mr. W. K. HARRIS, of Philadelphia: I have never grown *Amaryllis aulica* but have grown quite a large quantity of *Amaryllis vittata* and *Johnsoni*, and have bloomed them at Christmas. I plant them out in the open ground as soon as possible in the spring, lift and pot them about the twentieth of August, and withhold water until about six or seven weeks before they are wanted. To bloom them I place them in a temperature of about sixty-five to seventy degrees and water well. There will be no trouble in having them in bloom at any desired time after the middle of December.

Question number eleven :—“What shall be the national flower of the United States? Can this be decided at Washington, D. C., now?”

Mr. CHAS. F. EVANS, of Philadelphia, responded: I am afraid it is an impossibility to decide on a national flower now. I think we would

have to stay here another week to get anywhere near a decision ; and I question whether, even at the end of a week, we would be much nearer to it than we are today.

Mr. EUGENE H. MICHEL, of St. Louis: If I am not mistaken, the person who propounded the question had in mind to ask whether the different State delegations could, at this Convention, select a flower for their respective States. The fact does not appear to be recognized that the Society of American Florists is unable to speak for the great mass of the people of the country, because we do not understand what flower it really is to which the people have become attached, as the tendency of our occupation is toward commercial plants, and we have not sufficient opportunity to cultivate a special taste for the wild plants.

The PRESIDENT. The question of a national flower has come before the Society on one or two occasions, and I think the conclusion has been reached that it is not wise for it to take any action on the question.

Question number twelve :—“ Why does the *Hydrangea otaksa* cease to bloom after having been outside during the winter ?”

Mr. E. H. MICHEL, of St. Louis: If nobody here is prepared to answer that question, I can say why it does not bloom after it has been out in the winter, in the West and in the Central States. It is simply because it is dead, having been killed by the frost.

Mr. S. V. SMITH, of Baltimore, Md.: I do not know why it is said it does not bloom. This season, while riding around the park in Brooklyn, I saw it in bloom there.

Mr. WM. FRASER, of Baltimore: I know that it does not bloom when not properly protected—when either having too much or not enough protection. The flower germ being killed in the bud, it does not bloom ; sometimes the buds rot by excessive covering.

Question number thirteen :—“ It has been stated that it is more economical to buy hard coal at six dollars a ton, in districts where soft coal can be obtained at two dollars and fifty cents per ton. This argument is based on the statement of mining experts that hard coal contains one hundred units of heat to the pound to less than fifty units of heat to the pound contained in soft coal. Can any florist here give an experience to the contrary ?”

Mr. WM. FRASER, of Baltimore, Md.: I have tested both hard and soft coal and believe that, where a fireman is kept, the soft coal is equally as good as the hard, but it requires the presence of a man continually to attend to it. In the cost I do not think there is much

difference. With hard coal at from five dollars and twenty-five cents to five dollars and fifty cents and soft coal at three dollars, my experience is that we use about two tons of soft coal in the place of one ton of hard. I admit that soft coal gives you steam quicker, but it does not do for a florist who works all day and wants to sleep all night. You will use double the quantity of soft that you will use of hard coal.

Mr. J. T. ANTHONY, of Chicago, Ill. : I think that the statement just made is erroneous. If I have a large place, and am required to keep up a large quantity of steam, I would as soon have soft coal as hard coal, as I can do as much with a ton of soft coal as with a ton of hard coal. I speak from an experience of many years, being an engineer by profession. I now use hard coal in my greenhouse because my greenhouse is situated in the centre of the city where I do not like to be a nuisance by making any smoke, but I could heat the houses with one-third less of coal if I could use soft coal. In the case of a small place where you want to keep a slow fire, the statement of the gentleman (Mr. Fraser) would perhaps be correct ; but in a large place with ten or fifteen thousand feet of glass, you can make as much steam with soft coal as you can make with hard coal. I am not disputing the correctness of the statement as to the relative amount of heat in hard coal, but it should be remembered that we have at times a very uneven temperature, and that occasionally you want to start up a fire quickly. If you have hard coal, you are not able to hurry the fire as you can with soft coal. The latter is more under the control of the engineer. Then if you want to stop off your heat you cannot do this so quickly with hard coal, because you have been obliged to build up a big fire intending that it shall last all day, and it cannot be stopped off within five or six hours.

JOS. R. FREEMAN, of Washington; D. C., was the next speaker : He said that a friend of his, a practical steamfitter, had informed him of a recent test he had made, and which he declared most emphatically had demonstrated that with soft coal and with the boiler under hard pressure, the quantity of steam produced was in the proportion of nearly two to one as compared with the quantity produced with the use of hard coal. Mr. Freeman said that his own experience in the District of Columbia had satisfied him that it would pay any person who used one hundred tons of coal yearly, to keep a night watchman and use soft coal. Better results would be gained thereby. This he thought was especially true in the case of the florist, because many a night when the wind was blowing and the frost creeping through the crevices, he would be able to sleep with some little satisfaction when he knew there was somebody watching the fire. An intelligent, reliable watchman was necessary while using soft coal. He thought that the practical result was that as satisfactory results could be obtained with the same expenditure by using soft coal and paying for the services of a watchman, that were obtained by the use of hard coal without the expense of a watchman.

Mr. J. M. JORDAN, of St. Louis, Mo. : This question is a complicated one. Much depends upon the manner of your handling your fuel, and very much also on the appliance which you use for burning the coal in. In regard to the statement in the question, as to the amount of heat in a pound of hard coal as compared with a pound of soft coal, I may say that any one understanding the subject knows that there are the same number of heat units in a pound of pure carbon, whether it is from wood, from hard coal, soft coal, or any other combustion. So that it is humbug to talk about how many heat units there are evolved from hard or soft coal. It is a question as to the sufficiency of your appliance to take up the heat. There is as much difference in different varieties of soft coal as there would be in different kinds of wood. The proper way would be for each man to test the matter in his own appliance, and determine for himself as to what variety of coal would be the best or cheapest for him.

In regard to what has been said about smoke, I may say that there are appliances by which you can burn soft coal without producing this smoke. One such appliance is being used by manufacturing establishments, where the cost of manufacturing, say on a barrel of flour or a ton of iron, is estimated down to a very small percentage. They figure up on these little things in order to make a profit on their entire outlay, and therefore the kind of appliances which they use are those which we should use in the growing of our flowers if we want to be economical. The question is an important one to us florists, though too much stress seems to have been laid upon what has been said about appliances, especially for greenhouses. What we want are simply those appliances that have been thoroughly tested and as to which it is well known what they can do. As I have said, we can learn from the experience of the manufacturing establishments what appliances are preferable in point of economy and general value.

In the locality from which I come, where soft coal is very cheap, a superior article of coal for our greenhouses can be laid down for two dollars a ton, while hard coal is entirely out of the question, as it costs from seven dollars and fifty cents to eight dollars. Therefore we are compelled to burn soft coal. These appliances I speak of virtually cook the soft coal before an intense heat is produced.

Mr. A. W. SMITH, of Pittsburg, Pa. : About eighteen years ago, when starting in the florist business, I used coke, soft coal and hard coal in a series of experiments to determine as to the cheapest fuel. The results of my experiments convinced me that soft coal was much the cheapest. The experiments were conducted under a Hitching's corrugated fire-box hot-water boiler.

Mr. S. V. SMITH, of Baltimore, Md., said that he preferred to use bituminous coal because of the greater convenience in its use. He con-

tinued : I concur in what has been said by the gentleman from Baltimore (Mr. Fraser) with regard to the value of soft coal as the cheaper fuel. That gentleman stated that the price of one was three dollars and that of the other five dollars, or five dollars and twenty-five cents ; but with us, in winter time, the price is one dollar higher than that. If you will buy hard coal at five dollars a ton, you must purchase it in the summer, when you cannot well afford to spare the time for hauling it. This of course causes considerable amount of capital to lie idle, and you are required to give up a certain amount of space for the storing of the coal. On the other hand, in the winter time the soft coal remains at the same price : you can haul it at your leisure and use your own teams for the purpose. This is a consideration which should be taken into account.

Question number fourteen : — “ Has any member of the Society of American Florists had experience in using coal oil, gasoline or crude oil ; and what are the results as compared with coal ; also, what kind of appliances are required as burners ? ”

Mr. WM. FRASER, of Baltimore, Md. : I have seen an appliance for using coal oil and water. It consists of a plate of asbestos which, when heated and the oil and water introduced, creates a gas which is cleanly, economical and convenient. I have tested it and have no doubt as to its practicability. I think it will supplant coal eventually. To use it with steam requires a high pressure boiler. With this contrivance, the oil and water placed in a little tank near the boiler or stove, come upon this heated plate of asbestos together and forms a gas which is equal to any gas manufactured. If properly applied, I think it would be a very economical method of heating, and that when the question as to the patent is settled, it would take the place of coal. It appears that a Chicago firm obtained the contrivance originally and secured a patent on it. An employe of the firm, who afterwards left their employ, perfected the contrivance, and the condition of things now is such that he cannot use their invention and they will not use his, having failed to come to any agreement.

Mr. A. W. SMITH, of Pittsburg, Pa. : At the water works of the city of Pittsburg, lima oil, which is considered to be the cheapest petroleum oil, has been used under their boilers. After using it for several months they fell back to the use of natural gas. Although natural gas is considered at the present prices as much more expensive than soft coal, it is used in many places in Pittsburg on account of its making a smokeless fire. It is cheaper than the oil, but dearer than the coal.

#### THE WORLD'S FAIR AT CHICAGO.

Mr. E. GURNEY HILL, of Richmond, Ind., having obtained leave to make a statement, said : I suppose it is generally known that the



World's Fair management have provided for what they call an "Auxiliary Association" in conjunction with the exhibition of things material and industrial. In other words we are to have in connection with the great exposition next year in Chicago, an auxiliary congress of all the different industries, religious, and everything pertaining to art and science; and place and position for it have been provided in the agricultural department.

It is proposed, in line with the same arrangement, to hold what is called a "World's Fair Horticultural Congress." The purpose of this is to secure the co-operation of the best minds in this country and also in Europe, for the preparation of papers, essays, etc., which shall be read before such a congress. As you may know, the Society of American Florists last year appointed a committee of which I have the honor to be the chairman, to work upon these lines. This committee has done some little work; it has been corresponding, but it has not been able to ascertain definitely as yet how many of the horticulturists, nurserymen and florists from abroad will be with us next year. The matter is being looked into, and I doubt not that we will find a goodly array of talented men from over the water who will take part in that congress.

The date of the assembling of the congress seems to be a matter of much importance, and has not been determined. Mr. J. C. Vaughan has had that matter in charge to some extent, and he can probably give information about it. I have here a telegram from Mr. Bonney, the president of the World's Fair Auxiliary Association, stating that he can arrange for the Horticultural Congress to assemble on August 17th. That I believe, is the date for the opening of the annual meeting of the Society of American Florists, as fixed by our by-laws.

Secretary STEWART. It is the third Tuesday in August.

Mr. HILL. That will be about the seventeenth of the month, I think. Mr. Bonney was very desirous that the Horticultural Congress should be held as late as October, but Mr. Vaughan told him that that would not be satisfactory, and we must have a different date. Mr. Bonney has now named the seventeenth of August. Now, what can we do in the matter? Can this Society meet a week earlier and attend the Horticultural Congress in the week following? I know that all our members, at least a large number of them, will be interested in that congress, and would like to hear the distinguished men who will be present on that occasion to make addresses on horticulture and floriculture. I would like to hear from Mr. Vaughan on the subject, as he has the matter more in hand than I have.

Mr. J. C. VAUGHAN, of Chicago: Mr. President, I think that Mr. Hill has covered nearly the whole of it. The question of the date was one which it was deemed proper to arrange to consult the convenience of the agriculturist; but I stated to Mr. Bonney that I thought

that as horticulture had been given a separate place in the classification, it was only fair to our chief, Mr. Thorpe, that we should endeavor to bring the horticulture of the world to Chicago at a season when outdoor growth could be seen to the best advantage. I said plainly to him that I could hardly consent to go ahead with the committee work with any assurance to him of reasonable success, if they proposed to give us a date in the middle of October.

Nearly all other divisions have issued the preliminary addresses and appointed local members in different parts of Europe, but we have delayed issuing the preliminary address of the horticultural division, hoping to fix on a date for the congress and by that means to advise our visitors from abroad as to when they might expect to have an opportunity to be present at that congress. We have arranged with the Seed Trade Association that they shall hold their annual meeting (which has usually been held in June) at some later date. We hope to make it in the week preceding the Horticultural Congress. Floriculture of course is the large branch of horticulture that will be shown at Chicago, and in which most of us will be interested. I am not a member of the committee of this Society appointed with respect to the meeting of the congress; I am chairman of the local organization at Chicago. Professor Trelease and Mr. Hill are members of that organization; and the seedsmen, the botanists, the nurserymen and the florists are represented in it. Mr. Samuels and Mr. Thorpe are also members of it. We have a very full list of representative men on that local committee. In addition to that, the seedsmen have a separate committee. I do not know whether the nurserymen have one, but the florists have a large committee, of which Mr. Hill is chairman, but I do not know whether they have met or not. I think that, if your committee will attend sharply to this work, and if the date is arranged satisfactorily, you will be pretty sure to get such a list of representative men from foreign countries as you need, who will be glad to come here. I think that a full list will be readily obtained and that we can make that Horticultural Congress (which will doubtless be held in the week preceding or following the meeting of the Society of American Florists), an occasion of great interest.

It may be well for me to say here a word as to the line which it is proposed to cover in the essays to be delivered in the congress. It is not proposed to follow the same line which has been observed in these annual meetings, but to present a general review of the history of any class of stock that is spoken of; to consider, as Mr. Bonney puts it, "the past, the present and the probabilities of the future"—what has been accomplished, what is being undertaken and what may be expected in certain lines. He expects the essayists to be men of broad views, who can treat exhaustively each general subject that is brought up in the way I have indicated. In the art gallery on the lake front, we are to arrange

for large meetings. The halls there will seat three thousand people. It is proposed to give there on certain days essays which will be of special interest to seedsmen, nurserymen, florists and horticulturists ; particular days being assigned for each division. For instance, we shall have on one day for the seedsmen essays suitable to their trade, and on other days alternately essays or discussions of special interest to the other divisions. The meetings will be held in the forenoon so that the other half of the day may be devoted to the outside attractions.

If Chairman Bonney will give us a date somewhere near that now suggested we ought to try to arrange our annual session to be held a week or so sooner or later, so as to correspond with the meeting of the congress.

The PRESIDENT here suggested that a change in the date of the annual meeting of the Society of American Florists could not be made, except as provided by the constitution.

Mr. VAUGHAN : I do not believe that the date indicated by Mr. Bonney has been definitely fixed by him. If it is desired by this Society to have the congress meet a week later, and it will pass a resolution to that effect, he may be able to change the date so as to accord with our convenience ; he may make it a week earlier or a week later than the time stated, if this be deemed advisable.

Mr. J. N. MAY, of Summit, N. J. : Our constitution requires previous notice in writing of a proposed change of the time of our annual meeting ; and as we have now reached the last day of our session it would be impracticable at this time to make the change. Our meeting is called for the third Tuesday of August. That will give us the third week, and we can then be prepared to go to Chicago in the fourth week. I move that Mr. Vaughan be requested to communicate with President Bonney, and to ask him if he can fix the fourth Tuesday in August as the time ; and that Mr. Vaughan be constituted a committee of one for this purpose.

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

Mr. VAUGHAN : It seems to me that the matter ought to be left to some extent discretionary with the committee of the Society, of which Mr. Hill is chairman. By leaving it in their hands we will have some one take any necessary action after this Convention has adjourned.

The PRESIDENT : It is proposed that the committee of the Society appointed with reference to the World's Fair Horticultural Congress shall be continued in existence. If there is no objection the committee will be so continued. The Chair hears no objection.

## ROUTINE BUSINESS.

Announcement was here made of the appointment of the following as a committee on final resolutions: Messrs. C. W. HOITT, WM. FALCONER and C. B. WHITNALL.

Announcements were also made of the election of certain State vice-presidents by the State delegations, as follows: For Illinois, Mr. P. J. HAUSWIRTH; Maryland, WM. B. MCROBERTS, Jr.; Missouri, ROBERT F. TESSON; Indiana, G. R. GAUSS.

## CUT FLOWERS FOR HOLIDAY DEMANDS.

The regular order of business being taken up, the Convention listened with interest to the reading of an essay entitled "Cut Flowers for Holiday Demands," by Mr. HENRY YOUNG, of St. Louis, Mo.

The paper was as follows:—

In preparing this essay it has been hard to place a limit, as nearly all of the flowers cultivated under glass can, by being given special care and attention be brought into flower for some one of the holidays; so in treating the subject I have limited myself to those varieties of plants that can be profitably grown by the great majority of florists, and by the majority I understand those that are scattered far and wide through this country, and who come into direct contact with the parties using their product, thus being at the same time grower and dealer.

In viewing the subject I see it from the standpoint of personal experience, and would wish to impress upon my hearers the fact that all cut flowers grown at our place are sold direct to customers, thus permitting the profitable growth of many varieties that were we otherwise situated had best not be handled at all.

The principal holiday is Christmas, and after that Thanksgiving, Easter, Decoration Day and school commencements.

As Thanksgiving is the next holiday that will occur after this date, we will consider what are the best flowers to supply the demand at that time. Chrysanthemums are the principal and most important flowers to cultivate for Thanksgiving, for if properly handled they are very profitable. Cuttings put in the sand in June will produce very fine flowers if planted out on the benches in about four inches of soil in July. Good loam, heavy rather than light should be used in about equal proportion with well rotted manure. Set them six to eight inches apart, and train them to one stem giving one large flower or three of medium size as may be desired. Care should be taken that the plants do not suffer for want of water till the flowers have fully expanded. Take off all side shoots as they appear, and remove all buds except the terminal one. By concentrating all the force of the plant into terminal flowers they may be grown to a very large size.

*Bouvardia Humboldtii* is extensively cultivated, and is really a very graceful and desirable flower that is always in good demand.

All through their period of active growth it is absolutely necessary that the plants should receive plenty of water or they will be sure to suffer, and when the pots are filled with roots occasional doses of manure water will be beneficial.

*Jasminum grandiflorum* grown to a bush form produces large quantities of fragrant flowers. *Heliotropes* grown as half standards in six-inch pots are very nice to fill up odd corners in greenhouses where the temperature can be kept at about fifty-five degrees in winter.

Violets. Of these there are several varieties cultivated, and the flowers are in demand at all times and everywhere. They should be planted in good ground in an open situation, about nine inches apart, allowing twelve inches between the rows. Attention to cleaning, lightly hoeing the surface soil, and watering if necessary, are important details of summer management. In extreme hot weather mulching can be used to advantage as it keeps the soil cool and tends to prevent rapid evaporation.

Pansies of the best strains if sown in July can be had in flower by Thanksgiving, and if transplanted in frames and protected from cold winds will continue to give large quantities of flowers all the season.

Christmas coming at the season when all vegetation is taking its annual rest, flowers are more appreciated than at any other holiday, and it is therefore generally looked upon as the florists' harvest time. All growers of cut flowers plan months ahead to have as large and fine a crop as possible for this occasion. Tea roses at this time are at their best in size as well as in color, and continue to be the leading flower till the hybrids come in later in the season. Roman hyacinths and narcissus are indispensable and their culture is very simple. They should be planted early in the fall in flats, and covered with any coarse litter till they have rooted thoroughly. The best flowers are produced by forcing them slowly in a cool greenhouse; the blooms will then be firmer and last better when cut. In fact this may be said of all the so-called "Dutch Bulbs" with the exception of lily of the valley.

The double white camellia is again coming into public favor, and where a whole house can be devoted to them, the simplest method of cultivation is planting them out in a solid border. Any good soil will answer. During their growing season, March and April, they require an abundance of heat and moisture; afterwards they should be kept as cool as possible, and in winter a temperature of thirty-eight to forty degrees will be sufficient.

Bouvardias if carefully stopped can be induced to give an abundant crop of flowers at this season, and can be cleared away soon after New Years to make room for other plants. *Davidsonii*, *President Cleveland* and *A. Neuner* are the best to grow for this purpose. *Stevia serrata* is also in good demand, and is of the easiest culture.

Lilac also can be had in flower at this time. The best plants to use

are those that have been pot-grown, as they are more certain to give satisfaction. Plants that have been imported and potted up in the fall should be started six weeks before they will be required, in a temperature of fifty-five degrees which can be gradually increased to sixty-five to seventy degrees as growth progresses. The recognized variety is Charles X., which when forced comes a clear white color, and is very effective either as a cut flower or when used as a pot plant.

Mignonette is a flower that can be successfully cultivated even in small span roofed houses. Seed sown the latter part of July will give a good crop of flowers for Christmas, and with proper treatment it will continue in flower till June. It requires a good deep soil, careful watering and plenty of air at all times when the weather will permit, keeping the temperature as near forty degrees as possible.

By removing all the side growths below the flower spikes at an early stage, the flower spikes will be increased in size and therefore be of greater value. In cutting be sure to take the stems off to within a few inches of the base of the plant, as by this method it will break up strong and the flowers in June will be as good as those cut in December.

The double white primrose although it is now nearly sixty years since it was first introduced, still holds its own as a midwinter flower. The pips are an excellent substitute for short-stemmed white carnations, and the trusses of flowers can always be used to advantage. In culture it requires a light porous soil, and during the hot summer months needs shade which is best done with whitewash put on the glass about the middle of May and removed by September 15th. After the first of March, when the old plants have about done blooming, we cut them down and put the cuttings in sand, keeping them shaded from bright sunshine. In fact we never let them wilt until they have rooted, which they will do in about three weeks; then pot them off in two-inch pots, using a compost of four parts of loam, two of sifted spagnum moss and one of sand, keeping them close for about ten days; gradually harden them till air can be left on night and day; remove all flower stems and replot them as needed till about September 15th. They ought to be in five-inch pots which is quite large enough to flower them in. By keeping them in a cool, light place, larger flowers will be produced.

Orchids. While they cannot strictly be classed as a holiday flower, still I believe that all florists should have at least a few of the best cut flower varieties. It frequently happens that the best buyers want a few exceptionally fine flowers, and the florist that can supply them usually retains the buyer as a permanent customer. One great drawback to their culture, however, is their first cost. The best paying and easiest growing varieties are *Cyp. insigne*, *Cattleya Percivaliana*, *C. trianae*, *C. Mendelii*, *Lælia autumnalis*, *L. anceps*, *Dend. nobile*, *Cælogyne cristata* and *Lycaste Skinnerii*.

Tulips are showy and generally very useful. The early single varieties can be had for New Years. Later in the season all the varieties

can easily be forced. As soon as possible in the fall, plant the bulbs in pots or flats and cover with coarse litter till well rooted, which will be in about six or eight weeks. Bringing them into a cool greenhouse as wanted, and gradually increasing the temperature till sixty or sixty-five degrees is maintained, will give satisfactory results.

Poinsettias are not strictly speaking flowers, still their scarlet bracts are very effective when used as such. When they can be given a temperature of not less than sixty degrees, they are among the most useful plants, as they occupy the space but a short time. After being cut the plants can be placed under the stage and kept dry till the first of May; then if pruned back to two eyes on the last year's growth and given fresh soil they will break strong, and be ready to shift into larger pots, or transplant in boxes if most convenient, in July. They must be housed by the middle of September in this latitude, as the least cold checks them.

*Freesia refracta alba* is a very valuable holiday flower. Its habit of growth and fragrance make it a desirable addition at this time. Bulbs that are wanted to flower by December should be planted in August either in pots or flats in a moderately rich fibrous loam. They should be grown during the summer in frames, and removed to the house on the approach of cold weather. They are partial to a rather light situation as well as cool treatment (fifty to fifty-five degrees), and show it in their sturdy growth. Their successful cultivation largely lies in having the bulbs well ripened before drying off after the flowering season is over.

Easter is the next holiday of importance in the florist's calendar. The class of flowers most in demand are of the light and delicate shades. Yellow flowers are more popular now than at any other time of the year. Large quantities of the yellow narcissus are used, also the white and light shades of hyacinths.

The public never tires of the rose, and when we think of the beautiful hybrids that are grown for Easter, we can readily understand why it remains the popular favorite. With these as with all other flowers, the bright pinks and whites are in greater demand than the darker colored shades. Whatever may be grown there is one thing of prime importance in regard to this holiday, and that is the necessity of having the flowers ready in good season. Good flowers of all kinds can be sold during Easter week at fair prices, but if they are not ready until the day after Easter they will have to be sold at a reduction of from fifty to one hundred per cent.

Lilies are peculiarly connected with Easter, so much so that Easter without lilies would be no Easter at all. A great deal of attention has therefore been given to their cultivation for this season. The bulbs when received in the fall should be at once planted, and the pots stood in a frame outside, watered and given a light covering of litter. They

should remain here until there is danger of frost, (a light one, however, will not hurt them) when they should be removed to the house and kept cool until January. Then they may be kept warmer, say sixty degrees at night, increasing it however should the weather prove unfavorable. Try to have them well advanced as it is much easier to hold and harden them than to force them along, the flowers meanwhile being much improved by the cool treatment.

*Astilbe Japónica* is grown very extensively for this holiday. As the majority of plants are grown from imported clumps, these should be potted as soon as received and plunged in frames.

Bringing them into the forcing house about ten weeks before the time wanted and giving an abundance of water will give good results.

*Calla* lilies are largely grown for Easter. The bulbs should be partially rested from June till October and then grown on in pots. By being careful that they are not over-potted more flowers and less foliage will be produced than by any other method of culture.

*Chrysanthemum frutescens*, better known by their popular name of Paris daisies, are very useful for decorations.

*Myosotis*, (forget-me-not), are easily propagated from division or seed sown in the spring, and if given the same treatment as violets will produce large strong plants by autumn. *Dissitiflora* is one of the best sorts for winter blooming, and succeeds best grown in a cool greenhouse like *mignonette*. They are usually grown in cold frames like pansies.

Lilies of the valley are grown very extensively during the winter season. The certainty with which they can be forced for any given time as well as their beauty, makes them extremely valuable. Imported pips are generally used. Those coming in the fall can be counted upon to force well from January onward, while for earlier use pips must have been held over in cold storage from the year previous. Florists who can arrange with any of the numerous cold storage companies to hold some pips for them, will find them a most welcome addition at Christmas time. They require about three weeks after being placed in the bench to reach perfection, and have the advantage over freshly imported stock of throwing up fine foliage with the flowers. Care must be taken to place them in the forcing bench as soon as received from cold storage, as if left out for any length of time they are attacked by a rot which renders them useless.

When placed in the bench they should be covered with a light layer of sphagnum moss, and subjected to a bottom heat of ninety degrees, at the same time being kept close. As soon as the lower bells start to open, water must be withheld as there is danger of their rotting.

Two-year-old plants of *Deutzia gracilis*, potted in autumn and plunged in ashes in frames will be found very profitable at this season. If care is taken in starting them in a cool greenhouse and never allowing the temperature to get higher than fifty-five, they will have more foliage and be more desirable every way.



Decoration Day and school commencements are the last of the holidays, and generally wind up the cut flower trade for the season. With the abundance of outside flowers the prices are usually low, especially for Decoration Day. Beside having all the standard varieties, I would suggest planting good sized beds of hybrid perpetual roses, shrubs and hardy herbaceous plants if sufficient space can be had for that purpose, as when once planted they will bring in a steady revenue with but little expense. Of the shrubs we may mention spiræas in variety, viburnums, lilacs, Philadelphus, or mock orange, Weigelia rosea and candida, Deutzia gracilis and Deutzia crenata, fl. pl. Among the hardy herbaceous plants, pæonies, German iris, Coreopsis lanceolata, Lilium candidum, and longiflorum, Clematis recta, and Iberis sempervirens, (hardy candytuft), are excellent for all purposes.

The most satisfactory annuals are mignonette, candytuft, sweet peas, ten-week stocks, Phlox Drummondii and calendulas. The seed of these should be sown in the greenhouse, and stocky plants set out in April or May to have them in full bloom for school commencements.

In the foregoing list of plants nothing has been said at any length regarding the culture of roses or carnations, and in view of the able and exhaustive manner in which they have been treated at our late Conventions, both in the way of articles and through the question box, it would be impossible for me to improve on the cultural directions there given, and therefore no attempt has been made to do so.

Discussion of the essay was invited.

Mr. E. A. SEIDEWITZ, of Annapolis, Md., said: The essayist has drawn attention to flowers which have been grown cheaper than the rose and the other more expensive ones. I refer to mignonette, myosotis, bouvardia, stevia, heliotrope, and the like. The conditions of holiday trade at present in Baltimore are such, that a week before the holidays, some one of our Charles street florists will have a reporter come to his store, and will tell him all about the flowers for the holidays; about American Beauty at thirty-six dollars a dozen, La France at from five to six dollars a dozen, and other flowers at equally high figures. Now, this has been a detriment to the dealer in Baltimore, as it educates people to the idea that flowers are expensive luxuries. I think that the paper just read will go far to bring florists to realize that they should grow flowers more for the masses of the people.

Let me here relate a little incident in my own experience. When I first started in the business, in a city of ten thousand inhabitants, my sole object was to grow for the wholesale cut flower market, but circumstances were such that the people would come to buy, and I was forced to sell at retail. I saw from the condition of affairs that there were few in the community who were able to pay thirty-six dollars for American Beauties; and it was my object to bring the flowers within the reach of

every home in that town. I have not succeeded in this altogether, but am perfectly satisfied with my success. Our town is composed of a population of whom one-half are colored people. Those of you who know them, know that the colored people have not much sentiment for things beautiful. Through my efforts it has come to pass that at any time that a colored wedding, or dance, or funeral takes place, flowers will be ordered. The young negro will not order an expensive bunch, but rather one for fifty cents or a dollar. I realize as much profit by the large quantity disposed of as I do from selling to the naval officers (who buy them), American Beauties at thirty-six dollars a dozen. I would like to state right here that the most profitable flower grown by me last winter was the mignonette.

In one instance several years ago, a poorly clad woman came to me at Easter, stating that her son had died, and she wished to place a few flowers upon his grave. If I had told her you cannot get flowers at Easter to any extent for less than three to five dollars, I know that that poor woman would not have purchased any; but instead of that I told her she could get a few flowers for fifty cents. She made her purchase and she has continued to make purchases at intervals from that day to this. Another instance was that of a poor fisherman, who through my efforts, has come to that point that he places a bouquet, for fifty cents, upon the grave of his mother every Sunday in the year, rain or shine. No one can too highly appreciate the influence of this example upon that class of inhabitants of my town.

In conclusion I would like to express this sentiment, that I hope the day is not far distant when the custom of displaying a bunch of fresh flowers at Christmas time will be as universal as is the custom of having a Christmas tree at the present time.

Mr. J. D. CARMODY: As flowers cheaply grown are desirable in the holidays, I would mention a fact known to most florists, although very few of them take the trouble to avail themselves of it, and that is that the flowers from a number of the hardy shrubs such as *Pyrus Japonica*, lilacs, dentzias, *Magnolia purpurea*, and many other plants of that class may be opened in water for such occasions by simply cutting branches from these trees about six weeks before being needed. Place the stems in water and set them in a warm place. They will be brought in bloom for the Christmas holiday. The *Pyrus Japonica* may be bloomed and sold for apple blossoms in mid-winter. If grown in a dark place any of these flowers will be very nearly white.

The discussion here ended.

Adjourned until evening.

## THIRD DAY — EVENING.

The Convention re-assembled at 8.30 o'clock, P. M.; President DEAN in the Chair.

## FLORICULTURE FOR CHILDREN.

The session opened with the reading of an essay, by Mr. ROBERT FARQUHAR, of Boston, Mass., on "Floriculture for Children as a means of Increasing and Diffusing a Knowledge and Love of Flowers."

The essay was as follows:—

*Mr. President and Gentlemen,*—There are few subjects that could be selected capable of yielding more benefit to the members of this Society and others than this, and I sincerely hope that its claims may appeal to every one of us, and bear fruit in future days.

The public instruction of children in matters relating to horticulture and agriculture has been largely neglected by us as a nation, and if we, representing the florists of America, shall be able to bring into prominence the advantages which may result from interesting children in floriculture, and take practical hold of the work ourselves, we shall do an invaluable service to our country. In my paper I shall touch upon the following points:—

First. The foundation of our life work usually laid in earlier years.

Second. Why children should be trained to cultivate flowers.

Third. How children may imbibe a love for floriculture.

Fourth. What the florist can do, and his recompense.

The tendencies of modern business are to centralize all our efforts upon self. So keen is the competition, so restless and ambitious is the spirit of trade, that comparatively few interest themselves beyond its pressing duties, or exercise their minds habitually beyond the limits of their own little world.

The American business man too frequently consumes himself in his business. "Enough" is not in his vocabulary. He is ever on the outlook for greater achievements. He is at work morning, noon and night, planning, scheming, thinking how he may do larger things in his business.

Our fathers took time to enjoy a little of life as they went along. They devoted a goodly share of their thought to the duties of the social side of life. The happiness of home, wife and children was in their hearts and minds as the dearest thing on earth to live and labor for. All honor to the perseverance and business enterprise which has pushed our nation to a foremost place in almost every line of achievement; but is there not a danger of our better selves being lulled to sleep in the hurry and rush of this over busy age?

Business, if all-absorbing, lures us on and away from the sweetest and best things of life, and sooner or later we become unfitted for their enjoyment. Let us at least be careful that we do not intensify in our children a love for this ever unsatisfying chase. Dollars and cents are only the means to an end, not the end. True success and happiness only follow a well-planned life in which, not only our own interests, but also the interests of others are duly considered.

We cannot begin too soon to impress right ideas upon the minds of our children. Their first impressions are rarely effaced. Locke, the celebrated philosopher, says that he received more ideas before the age of five years than in all his after life. A leading authority in one of our largest religious bodies says that if children are trained in that faith to the age of seven years, they are sure to that church ever afterwards.

Children in our homes practically learn more from what we *are*, what we *think*, and what we *do*, than from all we *tell* them. It may be that our business as florists has led some of us to look upon flowers and plants with too much of a commercial eye — if so, our children will learn to do the same. If we are conscious and observant of all their marvelous beauty the youth around us will unconsciously learn to delight in flowers for their own sake. If we take the trouble to interest and instruct the little ones in the simple knowledge and care of flowers, how quickly in almost every instance will a genuine enthusiasm be awakened which will be life-long in its duration. How abundant *our* reward in *their* gratitude in after years!

The love of nature is implanted in the young heart, and we can *stifle* or *strengthen* it. Encourage it and you open the mind to the beauties of nature as it would never be, you provide a means of healthy exercise out of doors, and a source of delightful recreation and enjoyment all through life, no matter what occupation may be followed.

What is more delightful than to see children, both boys and girls, busy caring for their flower plots! what health, what lessons in care, order and patience in their play work!

Friends, give your children gardens of their own to care for, not too much of a garden at first, lest it should be burdensome, and discouragement succeed failure. Prepare it carefully for their use, providing shade and seat if possible. Tell the child the why and wherefore of the work as you proceed. You may do all this and it is still *his* garden, but do not sow a seed or plant a flower for him; let the child do that or his interest is gone. He will be willing almost invariably to act under your directions, not only in beginning operations but afterwards, until his knowledge and liking have given the experience to enable him to proceed alone. There are many ways which may suggest themselves to you as florists by which you may awaken and maintain a lively enthusiasm for the beautiful things in nature in your children, and which I need not occupy your time to mention.

Children so introduced to gardening will usually retain a lively interest in nature. Happy the parents who recognize their duty in this respect and do it.

Let us remember that we owe our children something more than board and lodging. While it is true that we of all nations provide most liberally for our homes with our *money*, I think it is equally true that we devote the best of *ourselves*, not to homes but to our business. It is our bounden duty to carefully mould the minds of our youth aright, to give such aid as lies in our power to develop these noble faculties which the Creator has implanted in their minds for high purposes. If trained aright they give character and power to the individual; if neglected they are soon obliterated. If we *cultivate* a field we must *seed* it with a profit bearing crop; if we neglect it, we make no effort for its occupancy — the crop of weeds will come surely.

Florists doing business in villages and towns enjoy excellent opportunities for doing most effective work in this line for the good of children, and of increasing their business at the same time. Let us picture a case. We will take for granted that the premises are kept neat and in good order — for we have observed that the most successful and popular florists have the best cared for establishments — paths about and in the plant houses passable, and the general surroundings attractive. Customers delight to walk leisurely about, and if accompanied by their children the latter are sure to be inquiringly interested. On all such occasions the wise florist will seek to interest and instruct as opportunity offers. How easy to illustrate the manner of propagation by the sprouting seed, or by the young plant with its newly found rootlets in the cutting bed. As he gathers the superb rose or chrysanthemum bloom, what a revelation it would be to the child to learn a little of its wonderful development from a common appearing single flower.

Fitting subjects are everywhere around for remark, which if availed of, will not only open the child-mind to the new world of delightful thought — it will open his mind to his instructor. He will have made a friend of the child for life, and in all probability made a customer of him also. And again, the information given will be communicated, while the florist and his establishment will become favorably known. No bread which he may cast upon the waters will return to him more surely than this.

Not infrequently florists are represented on committees of horticultural and agricultural fairs. The claims of children should not be forgotten when making up the list of premiums. The prizes offered them need not be of large amount, but should be for a variety of subjects, so that all might have a chance. Prizes might be given for bouquets and collections of wild flowers, grasses, annual and other garden flowers; for plants grown by children; for floral designs; model flower gardens and flower beds; moss houses and specimens of pressed

flowers mounted on card board and named if possible. If it could be made a rule at fairs to have each class of exhibits distinctly named, it would be of great advantage to children.

In Europe I have attended many flower shows where children had been educated up to making most interesting exhibits. The space set apart for their efforts was usually thronged by the young people discussing the merits of the display. In a recent number of the *London Gardeners' Chronicle*, I read of the donation by one of the Queen's daughters, of a handsome prize to a horticultural society in Scotland. The directors, wisely I think, offered it for competition in the children's department.

Village improvement societies are doing excellent work in many sections, and numerous towns and villages have taken up the work so vigorously that they have already been wonderfully changed for the better. Some have distributed seeds and plants to the school children with most satisfactory results. In all such enterprises let us not stand idly by. Those who know will most likely be called upon to give the children the simple instructions needed for a start. Let us give them heartily.

Any florist who so wills can begin an effective village improvement society of his own without expense of time or money. Usually the unsalable surplus of bedding plants is thrown away at the end of the planting season. I would suggest giving them away to the school children. Let the teacher make it known that at a certain time the distribution will be made. When your eager company has assembled it will take but a few minutes of your time to give one or more plants to each.

Could a happier disposal of stock useless to you, but valued by the children, be made? The satisfaction experienced will more than pay for the inconvenience, and you have given yourself an effective and enduring advertisement. Unquestionably the greater number we can interest in floriculture the larger will our demand become for both flowers and plants. Children soon grow up into patrons, and are worth cultivating if for business only. I hope we shall not overlook the higher motives.

I think the members of this Society should make a united effort to have the claims of floriculture for children, and kindred subjects, recognized in all our schools. I feel sure that a large majority of the teachers would give their hearty support to wisely planned efforts in this direction. I am honored by the acquaintance of one or two teachers, who have for years distributed many hundred of plants amongst their little pupils, and with most encouraging results. Special pains were taken to cultivate the *child-heart* through the agency of the flowers and plants, while the *brain* was cultivated by other studies. To these teachers I am indebted for not a few of the facts presented on this occasion.

Many of us can exert some influence where we reside in relation to school management.

The merchants, lawyers and ministers who usually make up our school committees rarely seek to influence education in the interests of horticulture or agriculture. It is book learning from beginning to end. One far-seeing teacher writes of our schools: "Scholars are bound to be non-producers until they are educated differently. Our pupils apply for such positions as our schools fit pupils for. If nine-tenths become traders, it is because our schools have fitted them better to be traders than anything else." As a consequence we have a large surplus of middle-men, and men who live by their wits. Small wonder then that a large proportion of our best all-round gardeners originally came from abroad. In most European countries school life fosters a practical acquaintance with Nature. Our children here love the beauties of nature as dearly as any, and our schools should foster such love instead of checking it. As an agricultural country America stands in the front rank, and the prosperity and wealth of the whole country depend upon the prosperity of those who till the soil; but these facts are entirely lost sight of in our schools, so far as any training being provided bearing directly upon them.

On this side of the Atlantic we justly pride ourselves upon being in advance of European countries in most attainments. We are very far behind many of them in the important matter of horticultural education of children. In France there are over twenty-six thousand primary and elementary schools where gardening is practically taught in gardens surrounding the schoolhouses.

In Austria there are about eight thousand of these schools, with from one-half to two acres each of cultivated land around them. The grounds in the rear may be found planted with a large variety of trees; at the sides and front are shrubs and flowers. One may see the teachers and pupils mingling together, studying interesting lessons based upon these plants. It has been said that boys will sooner injure a tree than cultivate it. I should be willing to risk my trees with the boys educated at such a school.

In Germany and several other countries which might be remarked upon if time permitted, similar schools have been conducted with marked success for years.

We live in a young country, but it is rich and progressive. The plain old school buildings are going, and elegant buildings with costly appliances are taking their places. But we should not be content with fine buildings, large play grounds and good teachers. In this country more than any, we need the proper setting of ample grounds filled with shrubs and flowers to bloom from earliest spring till winter. Instead of books alone we should see to it that our children have ample opportunities for enjoying a lesson from the book of Nature. Let us have less teaching and more *education* in our schools. Educate the whole boy, not a part.

In conclusion, friends, I seek to impress upon you individually, the importance of this subject, because it is one we can help so effectively. That some of the ideas advanced will soon become practical facts I heartily believe. If this Society shall give effective impetus to a movement which is simply invaluable in its results it will be to its everlasting honor.

There are many other ways by which children may be educated and broadened so as to get the best and the most out of life, but their mention or consideration lies beyond our province now. We shall seek to overcome the errors of this over-commercial age so that our children, when they rise to take our places, may estimate things at their true value. I heartily advocate business energy and due preparation for it, but let us learn its place.

The tendencies of floriculture are all in the right direction. We should have our men and women retain the child-heart, and a love for nature while they live. The little hands and happy faces may be tanned and dark in the sunny gardens, but the whiteness of soul which the love for Nature and for Nature's God gives, lies deeper and is eternal.

The paper was greeted with well merited applause.

The PRESIDENT invited discussion of what he styled "the magnificent essay," by Mr. Farquhar.

Mr. BENJAMIN HAMMOND, of Fishkill, N. Y., said: In my judgment, the able and interesting paper just read by Mr. Farquhar, of Boston, is one that is worthy of the most careful study of every man of brains and culture in this hall. There is no more important work to which any man can give his spare time than that of educating and elevating the taste of the children who are growing up around him and who must soon follow in his footsteps. It is my fortune to have to do with a considerable number of children. In association with some other gentlemen I have charge of some six hundred little folks, little bits of people, whose parents cannot afford to send them to private school.

We believe that the best schools in this land are those that are supported by the public purse. It is my conviction that no more important object can be accomplished in this country, in behalf of every schoolhouse in the land than to place the national flag upon its roof, and before its portals a magnificent flower bed. [Applause.] It has been my duty within two years to attend to the construction of one of the finest district schoolhouses in the State of New York. We have there four and one-half acres of land. Our committee in entering upon their work of building, insisted that while they were about it they should build for all time; and they therefore secured a plot of ground of sufficient size to allow the setting off of a part of it to be planted with flowers; their purpose being to diffuse among the children in the best possible way for them a love of



the beautiful and an appreciation of the bright things of nature. We laid out in front of our schoolhouse an area of an acre as a school lawn; and our worthy principal called upon the children to bring him what flowers they had so that he might make a garden on the lawn. The response was overwhelming; the quantity of flowers brought to the schoolhouse being such that every window was filled with them. Last year he came to me and asked to have a strip of ground in front of the schoolhouse doors improved, as he thought it would add to the appearance of things. I was reluctant to consent as I feared that it would be spoiled by the boys running over it. He assured me no damage would be done, and I told him to go ahead. He laid out a strip one hundred and fifty feet in length and two feet in width, which he planted with different kinds of flowers. The result was that, during all that year, with a daily average attendance of more than four hundred school children, that cultivated flower bed has not received the trespass of one foot upon it, and not one bloom has been touched. With recollections such as these in my mind, I regard the paper just read as of the utmost value.

I believe that the agencies of which the essayist speaks will bring about that uplifting of the masses of the people about which we have heard so much. I know that every one of the children of those masses of people has a soul just as my own little girl has a soul. Let us reflect that at our present rate of increase, our population at the end of another hundred years will amount to 850,000,000 of souls where we have today about 63,000,000. This is a mighty outlook. This Society is young and has a career before it and a work and a duty to perform such as perhaps has not devolved upon any other single society.

Referring again to Mr. Farquhar's paper for another idea, let me say a word in regard to the surplus stock. A gentleman in our town, a physician, who had cultivated a half acre of ground, had a quantity of stuff that he could not dispose of. Instead of throwing it on the rubbish heap, he went out with his men through our little village and offered to the children, to the white and the black, to the dirty and the neglected, to all alike, a flower pot or a plant. What did they do? Were they saucy? Not at all. I happened to see the distribution of this surplus material and I can say that a happier set of children I never saw. They appeared to be supremely happy. Did they throw "the weeds" away? Not one. Every one of them made tracks for home as fast as possible, and the first thing they did was to show their prizes to their mothers and explain, "Oh, see what this man has given me." All these things were to them things of beauty. Now, what is the effect of this? We are helping to make our neighbors better, we are doing for them more than dollars and cents can do. I may say that, within the range of my acquaintances, there are men with heavy balances in bank who are among the most grouty and cynical whom I have met. But the men who

wield the greatest influence in this country are those who have taken hold of the hearts of the people. Few men have left an impression on the hearts of people as General Garfield did. Why? Because he was a man of big heart as well as big brain. What is it that has made John Thorpe the chief of the Floriculture Department at Chicago? Is it the balance in his pocket book? Not at all. It is his kindly heart, sympathetic brain and sincere consideration for others. [Applause.] Just such opportunities as these men have had, you men and women, constantly have in your own towns, villages or cities; and in proportion as you exert yourselves for the children and benefit them by instilling valuable ideas into their minds, you enlarge their opportunities for usefulness and benefit yourselves. If we will avail ourselves of our possibilities, in this country to disseminate among the masses of the poor a love of flowers, we will do more by cultivating their tastes to ameliorate their condition, than can be done by any other means.

I hope that the paper of Mr. Farquhar will be printed and that every member will take it home with him, spend one night over it, read it through and then reflect upon it the next day. [Applause.]

Mr. MYRON A. HUNT, of Terre Haute, Ind.: Mr. President, some one has said that when we strike a country in which the culture and love of flowers are unknown, we strike barbarians, and that in proportion as our appreciation of those beauties of nature is encouraged and developed in ourselves and our children, we are removed from the condition of the people of such a country.

The essayist has spoken of many interesting things. He has alluded to the impressibility of the child; to that upon which we base our hope for its welfare. I believe that the home should be made the most attractive place on earth; that we should surround it with all that is beautiful; and that to this end we should inculcate in our children a love for the beauties of nature. If we teach them to love flowers, their hearts will naturally expand in other directions, and in after years in loving flowers they will have learned to love their fellow men and to love the author of all those beauties which are spread out so lavishly around them. The question arises, how shall we educate our children in this love. The essayist has said, "Give them a share in our work;" and I sincerely believe that the surest way is to induce them to co-operate with us in our labors. Let us give them a plat and encourage them to earn for themselves. I have pursued this course with my children for a number of years. A little one only nine years of age told me the other day that her bank account, representing money she had earned in horticultural pursuits, was fourteen dollars and fifty cents. That was to her a greater sum of money than the bank account of a wealthy depositor would be to him.

The speaker who preceded me, as well as the essayist, spoke of surplus stock. I think it is desirable to dispose of our surplus stock in the

way suggested by them, but let us go a step further. Many of us, at certain seasons of the year have a surplus of cut flowers. Let us distribute these by giving them to our children, taking them to the hospitals and sending them to the homes of the poor and the sick. There let the things we love brighten those dreary places and not only inculcate a sentiment akin to that which we entertain, but at the same time teach others to be charitable and sympathetic; and thus by the influence of our example we will bring men to let their hearts go out to the needy, the suffering and the sorrowful.

In my own State three years ago, in connection with the Alton show, one day was set aside for the children. Such a group and such a holiday as was seen on that occasion has not been equalled. I think that if the managements of the different fairs throughout the country would so arrange as to interest and entertain the children on a particular date, and invite the schools to come in on a low entrance fee or with free admission, (I would advocate making it free,) so that the children may come and have a good time, they will promote both their own interests and those of the public. In conversation with a gentleman today, the fact developed that, at a fair last summer in which he was interested, he offered prizes to the children for flowers grown by them. They came with plants of their own growing, and their collection was spread in one corner of the hall. The little prizes awarded to them filled their hearts with gladness. My friend was very careful in his distribution of awards not to overlook a single child, and each one carried away a prize for the work it had done.

I have only one thought more. Who among us, upon entering our churches on a pleasant Sabbath morning, on what is called "Children's Day," has not enjoyed the spectacle of the happy faces that have gathered there with the singing of the birds, amid the fragrance of the flowers, and while the sweet strains of the great organ are rolling down through the room? Can we imagine a more delightful scene in this world or one which more vividly reminds us of the home which we are told shall bloom eternally? [Applause.]

The discussion here closed.

#### FINAL RESOLUTIONS.

Mr. C. W. HORTT, of Nashua, N. H., the chairman of the Committee on Final Resolutions, presented the following report, which was read:—

The Committee on Final Resolutions submit their report for the consideration of the Convention, and ask the passage of the following resolutions:

*Resolved*, That the thanks of the Society be tendered the Hon. John W. Ross, Commissioner of the District of Columbia, and Hon. Edwin

Willits, Assistant Secretary of Agriculture, for their attendance and the cordial welcome extended to the Society by them at the opening exercises.

*Resolved*, That we fully recognize and appreciate the fact that to the National Gardeners' Club, of Washington, is due the greatest credit for formulating and carrying out the details necessary for the comfort and convenience of the members of the Society here assembled; that the entertainment and other committees have labored assiduously and earnestly for the welfare of all; that the Superintendent of trade exhibits by his systematic and careful arrangement has brought about the most satisfactory and successful exhibition ever held by the Society, pleasing alike to exhibitors, committees and parties examining; to each and all the foregoing a vote of thanks should be tendered by the Society.

*Resolved*, That to the essayists, a vote of thanks should be given for their efforts so well and ably presented, and so instructive in the matter submitted, calling forth broader discussion than frequently is given, and demanding as continuous attendance and attention as at any previous meeting.

*Resolved*, That to Mr. John R. McLean the thanks of the Society are due for the hospitalities so generously tendered at his grounds in this city.

*Resolved*, That to your officers are due your strongest commendations and thanks for their efforts in the management and conduct of the Convention about to be closed; for the smooth and pleasing manner of transacting the business entrusted to them, and for the successful transaction of the large amount of business brought to the attention of the Convention.

*Resolved*, That to the press is due a vote of thanks for the extended and clear reports of the transactions and doings of the Convention, and for the many courtesies extended by them in ways open only to them.

Chairman HORT, in support of the resolutions, reminded the Society that one year ago he had given an assurance of the advantages to be enjoyed by holding the Convention in the city of Washington; and he now appealed to members to say, from their experience of the past three days, whether he had over-estimated the hospitable character of the good people of Washington, or the National Gardeners' Club and officials of the national government. He thought that he could say, without detracting from other Conventions of the Society of American Florists which he had attended, that the present one had been perhaps more successful than any which preceded it. No local organization had entertained the Society with more generous and profuse hospitality than had the National Gardeners' Club of Washington.

He referred to the instruction and entertainment which had been derived from the essays read before the Convention; to the ability of the essayists; to the interesting and thorough character of the discussions; to the well systematized and magnificent trade exhibit with its immense amount of labor; and to the efficiency and exceptional ability with which the gentleman, (Mr. C. F. Hale), selected for the purpose by the superintendent of the National Botanic Garden, had supervised

the arrangements for the convenience and comfort of the exhibitors. He also complimented the retiring president of the Society upon his faithful and satisfactory discharge of the duties of the Chair, and alluded to the official associates of President Dean as "old timers," who needed no commendation. He also on behalf of the committee, expressed his appreciation of the accurate and readable reports made by the reporters for the press.

On motion of Mr. E. H. MICHEL, of St. Louis, the resolutions were adopted by a unanimous vote.

THE LATE FRANCIS T. MCFADDEN. \*

Mr. ROBERT FARQUHAR, of Boston, chairman of the committee to prepare a letter of condolence on the death of the late Francis T. McFadden, made the following report, which was read, viz. : —

WHEREAS, In the all-wisdom of Almighty God, he has seen fit to remove from the scenes of his earthly labors our most respected and lovable brother, F. T. McFadden, we hereby express our deep sorrow at the loss to us as individuals and as a Society, in the death of our late brother. Not only was he one of the most prominent cultivators of the choicest specimens of horticultural art — his specialty being orchids and other plants requiring great skill — but he was a man whom to know was to esteem for many good qualities.

*Resolved*, That we spread this resolution upon the records of this Society; and,

*Resolved*, That we, through the Secretary, express to his sorrowing friends our sympathy with them in their bereavement.

JOHN SAUL.  
M. A. HUNT.  
R. FARQUHAR.

Mr. JOHN RECK, of Bridgeport, Conn., suggested the propriety of some provision being made by which similar letters of condolence would be sent to the families of deceased members, upon notification of the death being received by the Society.

President DEAN replied that he would be glad to entertain any amendment making a provision such as suggested. He explained that the action taken in the present instance was exceptional, for the reason that the death had occurred upon the assembling of the Convention.

On motion of Mr. C. W. HOITT, of Nashua, N. H., the report was adopted and ordered to be spread upon the minutes.

THE QUESTION BOX.

The PRESIDENT here presented the Question Box for consideration. He invited responses from gentlemen whom he designated, as herein set forth.

Question number one was, "What are the best materials to use for shading on glass in summer, and how applied?"

Mr. JOHN OLIVER, of Lowell, Mass., being called upon, said: I can speak only from a limited experience. That which I have found to be the most serviceable is a mixture of benzine with a little white lead, which I have applied to the glass. I find that it does not wash off in showers of rain. I have also used lime, but it is necessary to apply this after every heavy shower. The benzine mixture is put on rather lightly with a whitewash brush. No greater quantity of white lead need be used than is sufficient to just clear the mixture; and if you do not find it heavy enough you can apply a little more.

Mr. J. L. DILLON, of Bloomsburg, Pa.: I think that the application with a whitewash brush would be a very slow process. I use a syringe. In a very few minutes a house of two or three hundred feet in length can be covered with the use of a syringe.

A response by Mr. J. N. MAY was also read, as follows:—

The requirements for this are somewhat varied according to the nature of the plants to be grown under; but for nearly all classes of plants requiring shade in summer, I have found that a shading tinted with green more or less, according to their nature, is of material benefit. The reason for this is obvious; nearly all the tropical plants, excepting orchids, grown in this country today, are found in their native habitat growing under the shade of green trees, some quite deeply shaded, others partially so, and Nature hardly ever is far wrong in her teachings.

To make such shadings I would advise one pound of *Emerald Green* ground in oil, and one pound of white lead well mixed with kerosene, the same as if it were going to be used as a paint, then reduced with the same material till it becomes the consistency of milk, and applied with a long-handled brush. A broad whitewash brush with a hole for bevel handle is the best, as it admits of a long handle with which it can be put on the glass very rapidly from the gutter, or where the roof is not very long from the ground in front of the house. The whole of the glass should be covered evenly with the material, and on a fine day this allows it to become set quickly.

This mixture will stay on the house for three or four months, gradually working off.

The above is suitable for a somewhat deep shading, but by adding more white lead and kerosene it can be made a lighter green, and correspondingly lighter shading, or the same color can be maintained but by adding more kerosene only to thin it down, so that the shading is not so dense, but the thinner it is put on the less time it will stand the weather. Where only quite a thin shading is required for a few weeks, the same composition made thin enough to go through the nose of a

syringe with which a large house can be covered in five to ten minutes, being careful to cover all parts evenly and only enough to just cover the glass, otherwise some parts of the house will be more shady than others.

These materials I have found, after many years experience, to be the best suited for general use. Some recommend naphtha in place of kerosene, but I find it does not stand as well and is no cheaper in its first cost ; in fact unless extra care is taken to avoid it, naphtha will when once tapped evaporate very fast from any vessel, excepting perhaps glass jars. I have also seen a portion of linseed oil used in the mixture, but this has the objection of collecting a large amount of dust, thereby making a dirty looking roof, and very hard to clean off. Crude petroleum has the same objection. One of the great advantages of the kerosene mixture is, that as soon as frost comes in the fall it can be rubbed off the glass very easily with a piece of dry burlap or similar material.

Question number two was, "How to mend a hose?"

Mr. F. G. FOSTER, of Hamilton, Ont., being called upon, came forward and responded as follows :—

The question of how to mend a hose most effectively and expeditiously has been one that has caused the majority of the craft a great deal of thought, and sometimes something more ; for who among us has not been in the position of having a burst in the hose just as they were in the greatest hurry, and after having spent may be ten minutes in repairing had the same thing happen again before they were through, that is if said hose happened to be on the ancient side ; that is where the something more comes in. Now I do not claim that I have hit upon the acme of perfection in mending a hose, but after using all the devices I could hear of, such as tubeing both iron and wood, with and without wire, shouldered and plain rubber tape, etc., I at last hit upon a simple device that with me, at least, has filled the bill as a hose mender, and the tinsmith who worked the thing out has, he thinks, made some improvements since, but that is perhaps a matter of opinion. My plan is simply a block tin tube four inches in length according to the size of the hose in use, with a special wire brazed on each end to form a worm to screw into the hose to be mended. I may say I showed the same thing to a few gentlemen in Toronto last year, among them Mr. J. Thorpe, and he put it to a very severe test, laying it on the floor and jumped on it with both feet. Now, while this somewhat marred the beauty of it, it did not destroy its efficiency. I claim for it two of the greatest merits : desirable, that is easy and expeditiously applied, and efficient when done.

How applied. Simply make a clean cut across the hose where burst, and screw the tube into both ends, bringing ends closely together. I find for one-half and three-quarter-inch hose that is all that is necessary, but for heavier hose a band over the joint with a screw is necessary ;

that is the improvement claimed. I have a length of fifty feet in use now that has ten of the tubes in it, and as efficient as any I have. Said fifty feet has been in use now two years.\*

Mr. JOHN MCGOWAN, of Orange, N. J., being called upon, stated that the hose-mender used by him, was in his opinion, the best and cheapest of its kind. He said that an explanation of it had appeared in the *American Florist* about a year ago, and as it would be difficult for him to explain it at this time, he referred the members to the *Florist*.

Question number three on the list was, "What admission fee for Chrysanthemum Shows is likely to bring the best returns in cities of from 100,000 to 200,000 population?"

A response by Mr. W. G. BERTERMANN, of Indianapolis, (to whom the question had been assigned), was read by Secretary STEWART, the respondent being absent. It was as follows:—

*Mr. President, Ladies and Gentlemen,*—My experience has been in our city of 125,000 inhabitants that an entrance fee of twenty-five cents during the day and fifty cents in the evening is about right. It equalizes in my mind the attendance. If we make it twenty-five cents in the evening a great many that now attend in the afternoon will wait until evening, when generally the crush comes. Of course we have first-class music in the evening, and fifty cents is not too much for the class of people that patronize the flower shows. I hear and read a great deal about making the admission fee very low, this is a mistake as well as making the entrance fee too high. It seems that it is very hard to draw people to a flower show at twenty-five cents, when at the same time matinees at theatres are crowded at twenty-five cents and fifty cents admission, therefore we have concluded to add music to our coming Chrysanthemum Show in the afternoons to do away with the monotonous feeling that overcomes a great many people when in the hall. Another point that is to be considered in making the admission fee reasonable and still high enough to not keep away people that do not want to patronize a cheap show, this is the class of visitors that in my estimation attend our exhibitions principally; they are willing to pay fifty cents provided of course that they are pleased with what they are given to see and hear.

Our annual Chrysanthemum Shows have grown in favor from year to year, our visitors are getting used to the regular entrance fees, and under no circumstances should they be changed after once being established. Advertising on a liberal basis is absolutely necessary to make any exhibition or flower show a success, providing that you have something

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\*A specimen of a hose-mender was exhibited by Mr. Foster, and inspected by a number of members.



worthy to show and wish to keep up the same from year to year. Do not get up your coming exhibitions on an inferior plan than the one you gave last year ; give something better, have different decorations, let the arrangements in the hall be altogether different, decorate your hallways as well as the inside, let everything have a festival appearance. Members of clubs and societies should be on hand in their best clothing (hat off of course), ready at all times to give information to those asking questions about plants and flowers, (if they are at times very, very funny). Special attractions each day and evening, and the proper advertising of the same must not be neglected. Do not fail to give a half hour of your best time to our friends the reporters, especially if they are not well posted on flowers they need all the attention possible ; they will be thankful to you for complete information, and a well written article with special attractions and musical programme for the next day will be the result of your little time spent pleasantly with the newspaper man. Lady reporters especially are mostly always well qualified to write up a flower show, and can be depended on giving correct statements, names of flowers, etc.

But I am going further than the question allows me, I only wish to add that our hall at Indianapolis is centrally located and well adapted for the holding of floral exhibitions, also the street car transfer system is one of the best in the country. These items are in our favor when it comes to be unfavorable weather, which by the way is most always our misfortune, but has never made a deficit.

Secretary STEWART : Mr. President, I would like to add a word in regard to our experience in Boston. We have had Chrysanthemum Shows there ever since Chrysanthemum Shows were instituted. Our experience has been different from Mr. Bertermann's. The evening attendance has been very small, as compared with that during the day, though the admission fee is but twenty-five cents. Possibly if we had a musical attraction we might bring the crowd in. It is apparent there, as well as elsewhere, that a flower show of itself, divested of the musical feature, fails to draw the crowd as it once did. In former years a flower show was a pleasant surprise because of its novelty ; there were no flower stores with windows decorated with the finest collections. A big squash even was a big attraction then. People do not care now to pay to see a flower show unless some extra attraction is thrown in with it. So that I fully acquiesce with Mr. Bertermann in what he says about the necessity for special attractions for flower shows. But the increased admission fee for evenings would not do with us. We charge twenty-five cents for both afternoon and evening, and the afternoon attendance is always the larger.

Mr. D. D. L. FARSON, of Philadelphia : Mr. President, if this question is not confined to shows in small towns like Boston, I would

like to say that in Philadelphia we have found that we could not afford to give a Chrysanthemum or Flower Show without we had a "tone-y" price. We tried it with a twenty-five-cent admission fee, and it would not go ; but we have found in Philadelphia, that with fine decorations, good music, and a first class press committee, we have no trouble either in defraying expenses or in making a little money at fifty cents. I think a good flower show is worth fifty cents, and I would be sorry to see the charge lessened, for it takes the "tone" out of it. [Merriment and applause.]

Mr. JOHN THORPE, of Chicago : The question of the amount to be paid by people who attend exhibitions appears to have been solved beyond a doubt by those little villages of Boston and Philadelphia where something is done sometimes ; but Chicago says that fifty cents will be enough to entitle you to see everything that can be seen. [Merriment and applause.]

Mr. E. H. MICHEL, of St. Louis, said that a most successful flower show had been held in St. Louis, at which the admission rate was twenty-five cents. Performances on a large organ were given in the afternoon and evening, and the number of visitors at night was slightly in excess of the afternoon attendance. He advocated the twenty-five-cent charge because he thought many a man would pay that amount to attend a flower show who would not pay more than that ; and as it was desired to cultivate a love for flowers by the people, the admission rate should be made low enough to suit everybody. The speaker commended the idea of setting apart a day for children at the show, and suggested that good results would follow from sending a few admission cards to the reporters of the press.

Question number four was, "How can Florists' Clubs be best managed for the interests of their members?"

The PRESIDENT : This question was assigned to Mr. Lonsdale. His response will be read by the Secretary.

Secretary STEWART : I have here two responses to that question — one from Philadelphia, and one from Canada. I will read the Philadelphia reply first. It is from Mr. Edwin Lonsdale, and is as follows : —

This is rather a hard nut to crack because so much depends upon the members composing the clubs. If the majority are desirous of improving themselves and have the best interests of their clubs at heart, the best way to manage it will soon suggest itself to the bright minds of their organization.

Speaking generally, in the first place, it is essential that all clubs hold allegiance to the Society of American Florists ; for anything that is done to further the interests of the parent society will benefit the clubs.

“Everybody’s business is nobody’s business,” is as true in the management of Florists’ Clubs as it is in anything else. It is therefore imperative that good officers should be selected. It is not well to practice the giving of the offices in rotation for the purpose of complimenting the members, although it may possibly be necessary for awhile until the right men in the right places appear ; especially may this be the case in the early existence of a club. When such men are found, keep them in their respective positions as long as possible.

All Florists’ Clubs should be business organizations. Build them on good, solid foundations ; let the interests of all the different branches of the trade from time to time be attended to.

Live, energetic standing committees should be appointed to take charge of the various departments. A standing committee should be in every club, whose duty it should be to look after the interests of the Society of American Florists, in connection with the club. If it could be done, all members of the local clubs should be members of the national Society. Some members have decided views on this point, and I trust they will give expression to them when the proper time comes.

A committee to select subjects for essays and discussions should be a part of all clubs. This committee will be found of great help to bring members together and keep them interested. Nor should the essayists or lecturers be confined to the members of the club. It would be of much interest occasionally to procure specialists to appear before the club. A committee on publication is a good one to have, whose duty it should be to secure copies of papers worthy of dissemination — to be furnished to all live horticultural publications when deemed advisable, — and sometimes it would be well to have essays on popular subjects appear in the daily newspapers. This would have a tendency to elevate the profession in the minds of the public, and give the members a better idea of the importance of their club.

A committee to test new appliances that are introduced from time to time, new insecticides, and so on, would be of much benefit to many of the members of the different clubs. No doubt manufacturers and interested parties who have such articles for sale would be only too glad to furnish them to a competent committee.

Exhibitions of new and interesting flowers or plants should be encouraged at all the regular meetings — not only from local members, but they should be solicited from all parts of the country, wherever practicable.

The social features must not be lost sight of, for “All work and no play makes Jack a dull boy,” applies to all who are connected with horticulture, as much as to any other industry. There are many innocent diversions — too numerous to mention here — that may be indulged in as recreation for the industrious and hard-worked florist.

An annual or a semi-annual banquet, or excursion, is to be com-

mended, as such gatherings bring about a better understanding of each other, dispel jealousies, and create a more healthy atmosphere in which to live, move, and have our being.

In conclusion, it is advisable to organize Florists' and Gardeners' Clubs wherever possible or practicable, for the benefits to the members of a well-managed club cannot be over-estimated.

Secretary STEWART: I will now read the Canada idea. It comes from Mr. A. H. EWING, of Toronto.

Mr. Ewing says: This question which I have been asked to reply to is an important one, and one which should, and I hope will, create discussion amongst the members present; it is a subject which pre-eminently needs discussion, in order that from the various experiences of those who have had the management of clubs, conclusions may be arrived at which will answer the question given with more weight than I could possibly hope to give to it myself individually. But first, to proceed with my own opinion, I think that Florists' clubs ought to have the benefit of the best brains in the country; and I don't see why they should not have it. Other societies, social, beneficial, etc., whose interests are spread all over the country, have a grand council composed of men specially chosen by the local branches; and I am convinced that it would be a real benefit to the various local clubs, if they had the advantage of referring disputes, knotty points and such like, to a similar grand council composed of members of the profession. It is often very difficult to get members of local clubs out of the narrow little grooves in which they have been running all their lives. Would not the above suggestion if carried out be very likely to broaden their ideas by giving them something to think about and take interest in outside of their own immediate little world? I will not here attempt to go into the matter further, nor to formulate any plan for the carrying out the idea, but will leave it to the good sense of the meeting to make further suggestions.

Another important matter in connection with the management of clubs is, what to do with the kickers (I mean the mule variety of kicker, viz., those who kick anyway, without considering whether it is likely to do good, or harm); and every club, I suppose, is the unfortunate possessor of one or more of this class. Well, my experience is that the line in the well-known nursery rhyme, "Little Bo Peep," just fits their case, "Leave them alone and they'll come home." Coddling is no good and will only make matters worse the next time the kicker kicks. I have known a member leave the club because an Englishman was elected president over an Irishman at the general election of officers. Now, of course it goes without saying, that there should be no question of nationality, politics or religion raised in the club; the only question is the welfare of the club and every member thereof, and the elevation and advancement of horticulture in general; and any member who is at all

inclined to bring up any of the above-mentioned subjects, should be promptly sat upon and squelched,— he is better out of the club until a kind Providence gives him sense to see the error of his ways. Of course, a great deal of the success of a club depends upon the earnestness of its officers and the tact displayed by them in carrying out their duties; earnestness without tact may tell in the long run, but tact even without earnestness will often accomplish an end in less time. Everyone is not possessed of this most desirable faculty; tact, therefore, care and forethought should be exercised at the annual nominations and elections. Don't nominate a man for office only because he is a friend of yours and you would like to do him a good turn, just think first whether he is likely to be the right man in the right place.

Another thing that is usually a benefit is to give as many of the members as possible something to do, even if it is ever so small, for the club; put them on some committee or other, or at the annual show entrust them with some duty according to their ability; it is human nature for a man to feel good when singled out from his fellows to do something useful, and it works both ways, both the club and the man is benefited.

And now, to conclude and to give someone else a chance (though I consider I have only just begun the subject), I would say that “nothing succeeds like success,” and before your club can have success there must be work, real work, on the part of the officers, more especially of the president and secretary. Three things are necessary,— work, the gift of the gab, and tact; but the greatest of these is tact.

Question number five was, “What measures should the Society take for the protection of its members from outside sharks?”

Mr. JOHN RECK, of Bridgeport, Conn., being called upon, replied that sharks were difficult things to handle, and he was a poor fisherman, but he thought it would be a good thing if some of them were caught. He said the National Society has done great good, particularly in bringing about a better intercourse among florists; that many of the afflictions from which the trade suffered in former years were now unknown, and things were running more smoothly; and yet very little had been accomplished for the protection of commercial interests. Referring to the large number of cities which have no florists societies, he said it was among these lone fishermen that the sharks found their prey. He thought that if in all the States, societies were formed which would meet two or three times a year and exchange their experiences, there would be an effective means of self protection.

By way of illustrating his meaning in showing the different varieties of sharks, he read correspondence which he had received in the course of business, setting forth the numerous ways in which a florist is liable to be victimized by irresponsible and dishonest customers.

The next question was as follows: "Has the steaming of tobacco been found effectual in the killing of green fly with no evil results?"

Mr. JOHN N. MAY, of Summit, N. J., responded as follows:—

After a good many trials with this, I found that the only effectual way was to apply steam direct to the tobacco liquid; and for the past year we have used it so effectually, and without any injury to any plants or flowers as far as we have been able to see.

The requirements necessary appear to be first, live steam, next tobacco juice or liquid strong and fresh made; then when the house or houses can be closed quite tightly, turn on the steam through a small pipe or jet into a tub or vessel of some sort containing enough juice to fill the house full of vapor; this, according to the house and steam at command, will take from ten to twenty minutes. When well filled shut off the steam and remove the apparatus to another house, etc.

If a moist quiet evening is selected for the operation the bulk of the fly will be killed by the first application, but as a rule, it is better to do it twice in succession, and where the fly has become very numerous in the house it may sometimes be necessary to do it three nights in succession.

As a general rule, prevention is preferable to strong doses of medicine, therefore I would advise where practicable to go all through the houses with a fair dose of vapor once a week. This will effectually keep the fly in check.

A response from Mr. J. H. DUNLOP, of Toronto, Ontario, who was not present, was read at the request of the Chair, by Mr. May. It was as follows:—

I have found evaporating tobacco stems by steam effectual in the killing of green fly. The system adopted has been to simply take an ordinary flower barrel, half fill it with fresh cigar stems, insert a quarter inch pipe connected with the radiating pipes, to within three or four inches of the bottom of the barrel, then fill remainder of barrel with stems, care being taken to press them firmly, so as steam will not pass off too quickly, the object being to have the steam penetrate all parts of the barrel filled with stems.

The pressure on boiler, from two to three pounds steam, should be left on from one and a half to two hours. If left too long, a flabbiness is noticeable on some varieties, and in dark weather a tendency to turn colored roses a shade lighter.

Evaporating should be done at least two hours before bloom is cut in morning. The object being to do it early in the day so as plants would dry quickly and not remain wet over night, which would be very objectionable.

I consider it safe, simple and effectual where steam heat is used.

The PRESIDENT invited responses to the remaining questions on the list for this evening, in regard to the best systems for heating and piping greenhouses, etc., but no reply was made.

Mr. P. O'MARA suggested the reference of the last question (concerning piping) to a committee, in view of its importance.

Mr. J. T. ANTHONY remarked that these questions had been talked over for ten years and, like the tariff, they were always with us. He could not see the propriety of referring either of them.

(No action was taken.)

The PRESIDENT then announced that the business of the Convention had been completed.

Mr. E. H. MICHEL, of St. Louis, stated, on behalf of the St. Louis Florist Club, that they would most heartily greet the Convention in that city next year, and he hoped that all the members now present would attend the reunion there.

On motion of Mr. P. O'MARA, of Jersey City, N. J., the Convention adjourned to re-assemble in St. Louis, on the third Tuesday of August, 1893.

WM. J. STEWART,  
*Secretary.*





# APPENDIX.

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## COMMITTEE ON FLORISTS' SUPPLIES AND FANCY EARTHENWARE.

We, the Committee on Florists' Supplies and Fancy Earthenware, have examined exhibits carefully, and beg leave to make the following report : —

Highest, or certificate of merit to Marschuetz & Co., Philadelphia.

Second, or honorable mention to H. Bayersdorfer & Co., Philadelphia.

Third, or highly commended to Ernst Kaufmann, Philadelphia.

J. C. Vaughan, Chicago, has on exhibition garden tools, baskets, pot-covers, grasses, etc. The former is first-class in every respect, and a credit to the exhibition.

C. S. Ford, Jr., Philadelphia, displays some very neat pretty immortelle letters, sheaves, cheneille, etc. A neat and tasty exhibit.

W. C. Krick, Brooklyn, N. Y., also display monograms, lettering, and designs in immortelles, some of which have required great taste and skill to bring them to such perfection.

Boston Florists' Letter Company have a very fine exhibit of letters for florists' use, also mottoes and script lettering.

Whilldin Pottery Company, of Philadelphia, have on exhibition a fine display of fancy jardinières, which undoubtedly will be appreciated by the trade.

N. Steffens, New York, has pretty displays of novelties in wire designs.

Mrs. E. G. Wilson has milk weeds, cape flowers and grasses claimed to be dyed under a new process.

[Signed]

H. L. SUNDERBRUCH.

W. J. SMYTH.

JOHN WESTCOTT.

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## COMMITTEE ON PLANTS.

The Committee on Plants reports as follows : —

Pitcher & Manda, exhibit of orchids. Certificate of merit.

John H. Ley, Washington, *Coccoloba grandiflora*. Certificate of merit.

Oasis Nursery Co., Westbury, L. I., seedling tuberous *Begonias*. Certificate of merit.

Mrs. A. B. Nickels, Laredo, Texas, collection of cacti. Certificate of merit.

Michel Plant and Seed Co., St. Louis, greenhouse and hardy plants. Honorable mention.

John Burton, Chestnut Hill, Philadelphia, collection of palms. Special mention for superior culture.

W. K. Harris, Philadelphia, Special mention for *Ficus elastica*.

John H. Ley, Washington, ornamental foliage plants. Certificate of merit.

Robert Craig, Philadelphia, ornamental foliage plants. Honorable mention.

Pitcher & Manda, palms and decorative plants. Certificate of merit. Special mention of *dracæna Madame Heine*, and *Iris pseudo acoris variegata*.

Henry A. Dreer, Philadelphia, palms and decorative plants. Honorable mention.

C. D. Ball, Holmesburg, Pa., palms and decorative plants. Highly commended.

Mrs. J. W. Dayhoff, Hagerstown, Md., seedling coleus. It is impossible for the judges to pass an opinion on this plant. It would be necessary to see it bedded out.

WM. J. MARTIN.  
FREDERICK GOLDRING.  
WM. S. CLARK.

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#### COMMITTEE ON CUT BLOOMS.

Your committee respectfully report as follows: —

*Begonias*. Tuberos-rooted varieties exhibited by J. Wilkinson Elliott, of Pittsburg, Pa. ; a collection which in color, form and size are very fine, and for which we recommend a certificate of merit.

*Cannas*. A large collection by Henry A. Dreer, in too wilted a condition to judge. A display by F. R. Pierson is uncommonly attractive, particularly the variety Paul Marquant, for which we recommend a certificate of merit.

*Roses*. A vase of Bridesmaid. These we do not consider fair specimens to judge.

Seedling Carnation, Excelsior, by C. E. Brinton, Wilmington, Del. Its color, size, fragrance and strength of stem, entitles this to honorable mention.

*Petunias*. A collection of doubles by Henry A. Dreer. Certificate of merit.

*Anthuriums*. A vase by Pitcher & Manda. Honorable mention.

*Nymphæas and lotus*. A collection by Wm. Tricker, Dongan Hills, N. Y. Highly commended.

*Asparagus plumosa*. W. H. Elliott, Brighton, Mass. Certificate of merit.

C. B. WHITNALL.  
JOS. BENNETT.  
LAWRENCE COTTER.

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#### COMMITTEE ON BULBS AND SEEDS.

We recommend that a certificate of merit be awarded to John Gardiner & Co., of Philadelphia, for uniform excellence of quality and the admirable manner in which their goods were displayed.

We further recommend that honorable mention be given to Z. De Forest Ely & Co., of Philadelphia, for general excellence of stock exhibited.

We also highly commend the collection displayed by Messrs. Pitcher

& Manda because of the more varied collection and excellence of quality of bulbs and seeds.

We further ask that a special mention be made of the display of Dutch hyacinths made by Hulsebosch Brothers.

J. R. FREEMAN.  
EUGENE DAILLEDOUZE.  
S. J. COLEMAN.

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COMMITTEE ON GREENHOUSE APPLIANCES AND FLOWER POTS.

The committee reports as follows :—

Whilldin Pottery Company exhibits standard pots from one and three-fourths to twelve inches, well made and measuring as close to standard measurements as the committee think they can be made. Also one specimen of the excelsior standard pot, with ventilated and perfect drainage bottom. Also five specimens of large hand-made pots, fern and seed pans, very strong and well finished.

Wm. H. Ernest, a large exhibit of standard pots, also pans and saucers which were found exceptionally strong, and formed a very creditable display.

D. C. Schofield & Co., an exhibit of standard pots, presenting a fine appearance.

Quaker City Machine Company exhibits Challenge ventilating apparatus much improved over last season's exhibit, by roller bearings on both sides of the sprocket wheel, bracket bearing for said wheel and much stronger chain.

E. Hippard has on exhibit a model of the Standard ventilating apparatus that can be applied in various ways, and is a first-class machine, with an improved adjustable arm and solid piece of steel shaft attached to the operating gear, and stronger shaft and gearing for operating wheel.

J. D. Carmody exhibits the "New Departure" ventilating apparatus, which, as its name implies is a new and original idea, being entirely different from anything heretofore exhibited, and worthy of honorable mention.

Hitchings & Co. exhibit a section of a rose house made of iron frames fitted with ventilating apparatus on top and sides, being light, strong and durable, for which we award a certificate of merit.

W. P. Wight exhibits the perfect drainage bench tile the same as was awarded a certificate of merit last season, but much improved by being made lighter and better. Also an iron frame for bench, simple in construction and worthy of certificate of merit.

William H. Diven a model of ventilating apparatus that opens both sides simultaneously, also a very good system of applying the arm attachment. Also an iron gutter with improved plan of attaching rafters, and a hollow iron post for conducting water from said gutter to an underground conduit. Also a clamp for attaching rafters and ridge.

Shirley & Deitrich exhibit an improved grass rake.

E. J. Van Reyper exhibit the perfect glaziers points. Very good for their purpose.

J. M. Gasser exhibits improved zinc glazing points.

W. H. ELLIOTT.  
JOHN BURTON.  
ALBERT M. HERR.

## COMMITTEE ON BOILERS AND HEATING APPARATUS.

Your committee consider that the Furman boiler, No. 2 $\frac{1}{2}$ , is the best of *those exhibited* for hot water circulation, but they cannot recommend it for *economic* steam heating.

They consider the Hitching's base boiler as excellent for conservatories or small dwellings; it can be safely used by inexperienced persons.

This may also apply to the Hitching's corrugated boiler.

Your committee consider that there is room for great improvement in the boilers offered for greenhouse purposes at the present time, and earnestly hope that the near future will show great progress in their make and construction.

J. T. ANTHONY.  
WILLIAM SCOTT.  
JOHN WELSH YOUNG.

## COMMITTEE ON MISCELLANEOUS EXHIBITS.

Your committee report as follows : —

D. B. Long, Buffalo, N. Y., florists' photographs. Certificate of merit.

A. Le Moutt, New York City, photographs of funeral designs. Honorable mention.

C. H. Joosten, New York City, magazine bellows. Certificate of merit.

Stott Garden Implement Company, New York City, patent syringe and patent sprayer. Certificate of merit. Also *distributor* for mixing solid insecticides. Certificate of merit.

D. H. Roberts, New York City, greenhouse glass. Certificate of merit.

The Reed Glass Company, New York City, greenhouse glass. Honorable mention.

Benjamin F. Sill, Long Island City, N. Y., Sill's window garden spray. Honorable mention.

John McGowan, Orange, N. J., liquid manure distributor. Certificate of merit.

J. Arnot Penman, New York City, horticultural books. Honorable mention.

W. P. Wight, Madison, N. J., cut flower shipping case. Certificate of merit.

J. C. Vaughan, Chicago, Ill., greenhouse and garden syringes. Honorable mention.

John Gardiner & Co., Philadelphia, Pa., new spray pump, "Little Climax." Honorable mention.

L. B. Bague, Hinsdale, Mass., fern fronds, evergreen trees, etc., etc. Honorable mention.

Edwards & Docker, Philadelphia, Pa., "Star" florists' boxes. Certificate of merit.

Henry A. Dreer, Philadelphia, Pa., exhibit of wooden and zinc labels. Highly commended.

Edward S. Schmid, Washington, D. C., goldfish and globes. Honorable mention.

PATRICK O'MARA.  
HARRY CHAAPEL.  
EPHRAIM HOFFMAN.

## THE FLORISTS' HAIL ASSOCIATION.

After the reading of the reports of the secretary and treasurer, the following amendments to the by-laws recommended by the directors were acted upon : —

Section 3 of Article III. was unanimously agreed to. It was passed as follows : “ Whenever a member has only insured a portion of his glass, and desires to increase his insurance, such member may do so by forwarding to the treasurer his application for such increase, accompanied by the usual fees, as follows : Fifty cents per thousand feet for each one thousand square feet, (known as membership fee), and one assessment at the rates stated in Article V. of Section 1 of these by-laws.

Section 4 of Article V., as recommended by the directors, was also unanimously passed. It reads as follows : “ If any person fail to pay his assessment within the space of thirty days after notice thereof has been mailed by the secretary, his insurance shall expire and be void. It is, however, hereby provided that if said assessment is paid within sixty days from the date of levy, the secretary having mailed a notice to this effect, the said member may be reinstated on payment of said assessment and without the payment of a new membership fee.

The directors also recommended that the president be paid \$100 per annum for his services. This was amended to read \$30, and as amended was unanimously adopted. A resolution to pay President Jordan \$100 for services during the past five years, was also unanimously passed. Messrs. Seidewitz and Waldbart, of the Committee on Fire Insurance, reported that nothing outside of determining present rates had been done. After a few suggestions by the secretary a resolution was passed appointing a committee of three to classify greenhouse risks with a view to secure better rates of fire insurance for the members of the Florists' Hail Association. John G. Esler, E. H. Michel and James Horan were the committee appointed. The following directors were then elected : J. M. Jordan, Edwin Lonsdale, Julius Roehrs, Lewis E. Wood, John Temple, E. G. Hill and James Horan. After which the meeting adjourned.

At a meeting of the Board of Directors, held subsequently, J. M. Jordan was elected President for the ensuing year ; James Horan, Vice-president, and John G. Esler, Secretary. The election of treasurer was passed, and the present incumbent, J. C. Vaughan, holds over. The treasurer was also instructed to purchase for the reserve fund \$500 worth of bonds of the State, county or school boards of the State of Illinois.

## SECRETARY'S REPORT.

On August 1, 1892, there were 426 members of the Florists' Hail Association. These members insured 4,078,725 square feet of glass, of which 1,887,192 square feet were single thick and 2,191,533 square feet

were double thick. Extra one-half insurance has been taken upon 52,410 square feet of single thick and upon 94,651 square feet of double thick. Extra whole insurance has been taken upon 329,817 square feet of single thick glass and 351,558 square feet of double thick glass. The third assessment was levied on May 1, 1892, upon 349 members. Of this number only nineteen were delinquent. The amount paid in for this assessment was \$2,427.42. The total amount received from August 1, 1891, to August 1, 1892, upon all applications, including membership fees was \$1,829.45. The reserve fund or membership fees on August 1, 1892, consisted of \$2,000 in county and school bonds and \$542.13 in the hands of the treasurer, still uninvested. The available assessment fund, after paying all losses and expenses is \$3,454.04. The following losses have been paid during the past year. To Arthur Thomhill, Rosedale, Kansas, \$4.90. To M. J. Coventry, Fort Scott, Kansas, \$13.50. To J. P. Coen, Jr., Lexington, Mo., \$27.10. To L. A. Smith, Wheeling, West Virginia, \$1.88. To Probst Bros. Floral Co., Kansas City, Mo., \$37.10. To Chapin Bros., Lincoln, Nebraska, \$23.10. To Harry Baker, Bessemer, Colorado, \$21.85. To J. P. Coen, Jr., Lexington, Mo., second loss, \$16.07. To J. J. Schumacher, Sioux Falls, South Dakota, \$46.14. To James McNabe, Cantonville, Maryland, \$7.25. To R. A. Rollinson, Des Moines, Iowa, \$68.72. To Rudolph Koeppen, Springfield, Mo., \$7.79. To F. Calvert & Son, Lake Forest, Ill., \$64.30. To John W. Bortmas, Butler, Pa., \$29.13. To L. C. Dickhut, Chatham, N. J., \$2.80. To L. M. Noe, Madison, N. J., \$56.32. To Harry Baker, Bessemer, Colorado, second loss, \$60.20. To Henry Kingston, Council Bluffs, Iowa, \$18.70. To James Frost, Greenville, Ohio, \$7.18. To H. W. Buckbee, Rockford, Ill., \$65.22. To M. J. Coventry, Fort Scott, Kansas, second loss, \$19.60. To Mrs. A. Berdan, St. Louis, Mo., \$92.30. To William J. Scott, Buffalo, N. Y., \$168.90. Making a total of \$861.67 from which \$11.76 has been returned for re-insurance. The total amount of single thick glass broken was 13,418 and one-sixth square feet and of double thick 3,743 $\frac{2}{3}$  square feet. The percentage of loss for the past year has been one square foot of single thick glass for every 140 and eight-thirteenths square feet insured, and of double thick, one square foot of loss to every 585 $\frac{1}{2}$  square feet insured. So far as your secretary has been able to learn hail storms have visited the following localities: Elizabethport, N. J., Sawyer, Minn., Carlisle, Ohio, Mount Washington, Maryland, Wadena, Minn., Brooklyn, Mich., Rosedale, Kansas, St. Cloud, Minn., Fort Scott, Kansas, Lexington, Ky., Martin's Ferry, West Virginia, Coffeerville, Kansas, Burlington, Kansas, Lexington, Mo., Westmoreland Co., Pa., Wheeling, West Virginia, St. Louis, Mo., Kansas City, Mo., Lincoln, Nebraska, Pueblo, Colorado, Corning, N. Y., Cleveland, Ohio, Bessemer, Colorado, Canton, Ohio, Lake Forest, Ill., Butler, Pa., Springfield, Mo., St. Paul, Minn., Castine, Maine, Chatham, N. J., Nyack, N. Y., Madison, N. J., Council Bluffs, Iowa, Greenville,

Ohio, Rockford, Ill., Greenfield, Mass., Winsted, Conn., Warren, Pa., Baltimore, Md., St. Louis, Mo., Buffalo, N. Y., Bradford, Pa., Kalamazoo, Mich., and Tuxedo Park, N. Y. The increase in membership has been steady, the adjustment of all losses satisfactory, and old members have attested their confidence by insuring their increased areas of glass. The wisdom of a reserve fund is daily more apparent and the prorating of all losses furnishes an equitable method of adjustment. The financial condition of the Association speaks for itself. The changes in the by-laws made it necessary to entirely change all blank forms in use, and the increase in membership made it necessary to procure new books to keep the accounts of the Association. This together with the increased correspondence of both secretary and treasurer, has considerably enlarged the stationery and expense account over former years, but not one dollar of the funds of the Association has been expended that was not absolutely necessary, it having always been the object of the officers and directors to run the business of the Association at a minimum of cost.

JOHN G. ESLER, *Secretary.*

#### TREASURER'S REPORT.

Report of the Treasurer of the Florists' Hail Association, August, 1, 1892:—

Balance of cash on hand last report . . . . .	\$1,918.20
Received from new and additional insurance . . . . .	1,817.69
“ “ third assessment . . . . .	2,427.42
Interest on bonds . . . . .	95.00
	<u>\$6,258.31</u>

#### DISBURSEMENTS.

Losses paid during the year . . . . .	\$849.91
Sundry expenses . . . . .	385.45
School bonds bought . . . . .	1,026.78
	<u>\$2,262.14</u>
Cash on hand . . . . .	3,996.17
	<u>\$6,258.31</u>

#### SCHOOL BONDS ON HAND.

One town of Lakeview, Ill., 5 per cent., due Aug. 1, 1896 . . . . .	\$500.00
One city of Chicago, 4 per cent., due Jan. 1, 1911 . . . . .	500.00
Two county of Du Page, 5 per cent., Aug. 1, 1879 . . . . .	1,000.00
	<u>\$2,000.00</u>

#### THE FLORISTS' PROTECTIVE ASSOCIATION OF AMERICA.

The members of this Association met promptly at 3.30 P.M., on Thursday, and were called to order by Chairman J. C. VAUGHAN.

The secretary read his report, the full text of which follows, and it was very freely discussed, nearly all the members present taking part in the discussion. It was thought well to call the attention of the trade to

the new features recommended by the secretary, though most of those present thought the new information blank impracticable ; but it was voted to instruct the secretary to give it as much of a trial as he thought advisable, and to give the draft and collection system a thorough trial. It was thought by those present that the draft and collection system was the only thing needed to make our Association complete ; and if all members of the trade would only give the Association the support it deserves, it would be made the most perfect protective association in the world, and it would give its members perfect protection.

After a very free discussion of the value the Association could and would be with an adequate amount of funds in the treasury, a motion to make the yearly dues five dollars was unanimously carried.

The matter of unjust ratings was brought up by Mr. Manda, but he was assured by the Chair that the constitution provided ample redress for all who thought themselves unjustly rated, and that if he would only give the names of any who were unjustly rated, or even the names of any he thought might be an error, the matters would receive prompt and careful attention, and be promptly and cheerfully corrected. The Association was planned on the broad christian plane of " With charity for all, with malice toward none, we seek equity without oppression," and the management would spare no pains to live up to the rule.

In the election which followed, Messrs. F. R. Pierson, M. A. Hunt and Robert Craig were elected members of the advisory board, and H. B. Beatty secretary and treasurer.

#### SECRETARY'S REPORT.

*Officers and Members of the Florists' Protective Association, Greeting,*  
—In making his fourth annual report, your secretary desires to say that he has not been able to send out as many notification sheets the past year as he had wished and hoped for, partly on account of ill health, and partly on account of members not sending in all names promptly. Your secretary is no prophet or the son of a prophet; but it does seem to him that like the Israelites of olden time, we are today standing on the brink of the promised land (where no poor-pay customers " can take us in,") and like them we fear to enter and take possession. Why? I do not know, unless like those of olden time we have for so long been the slaves of the " Egyptians " (poor-pay customers) that we fear the " giants " which it is to their interests to make us believe are unconquerable ; but don't you believe it! The Moses and Aaron of the Florists' Protective Association can easily convince you they do not exist (except in your imagination), if you will only tell them what it is you fear.

We have the organization that cannot fail to lead you on to victory if you will only do your part and duty. There is no such word as " fail " in the dictionary of the Florists' Protective Association ; I know, for I have looked carefully for it, but could not find it.



You have an organization to whose office you can send all names of parties who have not dealt fairly with you, and you can rest assured that under no circumstances will anyone see or know the details of such report, except the secretary and his assistants, and the advisory board, and they only when called on to revise a report.

If you do not desire that anyone should know in what amounts the parties may be delinquent that can be omitted in your report, though it is very necessary and desirable in figuring on the financial standing of parties, that we should know in what amounts they may be in debt. I congratulate you (and feel proud in doing it) that we should be the first trade to successfully put in operation a system that all tradespeople have been striving after, without a full measure of success, for ages. Let me read to you an extract from a letter to one of our members, written by one of the ablest lawyers of a large western city: — “Could not a plan be devised and carried out by which dealers could protect themselves against loss more effectually than at the present? I believe something could be done in that direction if an association were formed, each of the members of which would report to some central office the name of everyone of their customers who owed them, to be put upon a black-list, which list could from time to time be sent them, or from which list they could from time to time get the information by writing or telegraphing for it; the members at the same time binding themselves not to sell to any person reported as bad pay.”

At the time this was written our Association had been in successful operation for more than two years. (I tell you there is no “wool” on our “Western” friends, the papers to contrary notwithstanding.)

Regarding what he says about the pledge, to sell to no party who is reported as bad pay, would say that that matter was fully discussed at our first meeting, and decided that at that time it would be best to leave it to each member to decide for himself whether he would or would not sell to parties reported; but if after we had got in working order it was thought better to have it binding on members not to sell to parties on our list, it could then be brought before an annual meeting, and incorporated in our laws. I think that time has now come. The advantage I see in the pledge to sell to none who are on our lists is, that if parties knew that if on our list they could *positively* get no goods unless paid for in advance, they would see to it that their names were not on.

Everyone who does not pay his just debts is a positive, active and permanent injury to the entire trade of the country, both wholesale and retail, and the sooner the trade realize this the better for us all.

It would naturally be supposed our members would be enough alive to their own interests (as well as to the best interests of their good pay customers and general trade), to refuse to sell to anyone who either does not intend to pay his honest debts, or is so careless and indifferent about the payment of them that he pays no attention to repeated requests for payment, and so in time gets on our list.

That each should decide for himself whom he would or would not trust, is right enough, but it is a weak point in our Association ; for if all parties knew that there was no chance to get goods if their names were on our list, we would, I feel sure, have fewer names and our members more money. There is no better protection possible than that offered by our Association, if the trade would only promptly give us the names of all parties who owe them, and from whom they have been unable to get their pay. When we accomplish this, and we are now well equipped to do it, we will be at the head of all protective associations, and will give our members *absolute* protection ; and such a desideratum is *not only possible, but it is now within our grasp*. All we need is that magic co-operation, and I cannot see why we should not have it, for undoubtedly it is for the best interests of everyone in the trade, both wholesale and retail, that we should be so equipped. There is no reason why we should not be so equipped if each of our members would only do what I have no doubt some of you are wishing A, B and C would do, viz.: send the secretary a complete list of all accounts past due. If they are long past due and hopeless, you need be at no expense in sending notices ; simply instruct the secretary to that effect. If there is a possibility of collecting them a notice from our Association will do it ; if none, it is a direct benefit to yourself and every one of your customers that the competition of that party be stopped, and until he is stopped he is injuring you more every year by his ruinous competition with your customers who pay their bills, than the expense of our Association for five years.

The new matters to be presented for your consideration are not entirely new, as they have been contemplated from the time our Association was formed, and especially is this true of the "Collection Department." I am, however, informed that one of the commercial agencies was last year advertising a "new departure" — collections by drafts — thus putting in operation the method we contemplated at the start of our Association four years ago. This goes to prove there are some smart fellows outside of the Society of American Florists.

If accepted by the Association the "Collection and Draft Department" will be as follows : Each member will be furnished with a book of Association drafts in regular draft form, but made payable to the treasurer of the Florists' Protective Association for collection.

These each member will fill in for any accounts he wishes to draw for, and send to the secretary of the Florists' Protective Association, who will draw on the parties. It is almost needless to take up time in telling how much better this is than the old way of drawing through your bankers ; but briefly it is miles ahead of the old way in that when a party is drawn on through regular channels of the trade and dishonors the draft, usually no one knows of it except the bankers' collection clerk, your bank and yourself, and most probably the home bank is already

aware of the party's financial condition ; but when we draw and a draft is returned unpaid the entire trade of the country is at once notified of the circumstances, and it would be financial suicide for a party to allow a draft to be dishonored, and make no explanations. You can readily see what a force our drafts will carry, and if a debtor does not respond to a draft through us, it is good evidence that he is in bad shape, and the account should at once be placed in attorney's hands for collection.

For the collection a fee of...per cent. will be charged, but no charge less than.....

The " Information Blank " (form 5), is entirely new and I have no doubt will work satisfactorily ; the real and important point in it cannot well be stated in a public meeting, but the management feel sure that it is well worth a trial, though it will add to the cost of our membership. It is the only way I could see to secure the information necessary to make our service effective, and I trust that the Association will decide to give it a thorough trial.

As we often receive information which indicates that the party may not be good pay, but still at the time cannot say he is bad, it is thought well to issue a cautionary notice, printed in green ink, (form 7), which members (and members only), will understand as being cautionary and they should be careful in any contemplated trade with the parties named thereon ; and also should at once send the secretary all information they may have as to the parties' standing.

The form will read : —

The names and addresses you requested are as follows :.....

.....

Any further information will be gladly received and forwarded.

FLORISTS' PROTECTIVE ASSOCIATION.

Where new names are inquired for I think it will be a good idea for us to also inquire of our members in the immediate vicinity of the party, and if the suggestion meets with the approval of the members your secretary will prepare the proper blanks for that purpose.

It is no doubt needless to say that all information thus given will be treated sacredly, confidential as to source and details, and so members need have no hesitancy in answering such requests.

In closing I desire to call the attention of all live-awake, reputable florists to the benefits which they derive from the work of our Association, both directly and indirectly. Too many of you know what it is to have a neighbor who is continually selling flowers at less than living rates, thereby injuring your trade, and not yours only but all fair trade, and in order to do this it is even chances that he does not pay his bills. We are after that kind of people with a sharp stick. We also have a

number of cases reported in which dead-beats order goods shipped C. O. D., refuse to take them from the express company, but have a confederate who goes around to the express office and buys the goods for the express charges. Can you compete with that kind of dealer? Is it not worth the small annual cost in our Association to be rid of that kind of competition? The proper support given to The Florists' Protective Association and you will not only get rid of that kind of ruinous competition, but it will also be made impossible for your competitors to run long bills, sell goods for less than first cost to you, and then fail.

Respectfully submitted,

H. B. BEATTY, *Secretary.*

### THE FLORISTS' INTERNATIONAL TELEGRAPH-DELIVERY ASSOCIATION.

The Association met at 3.30 P. M., Tuesday, in the red parlor of the Ebbitt House, and elected the following directors:—

Mr. Albert Small, Washington, D. C., to fill the unexpired term of Daniel B. Long, resigned, owing to his engaging in the wholesale trade; Mr. W. F. Gale, Springfield, Mass., re-elected; Mr. J. M. Jordan, St. Louis, Mo.; Mr. Edwin A. Seidewitz, Annapolis, Md., to serve for the full term of three years.

President Whitnall read a very interesting report covering the operations for the year, which was followed by the Secretary's report, and the members then spent a pleasant two hours in discussing the reports and in devising ways and means of advancing the interests of our Association.

At the meeting held Thursday afternoon in the National Rifles' Armory, the following changes in the by-laws were unanimously adopted, after a full and free discussion of the advantages to be derived by the changes:—

Article III. of the by-laws was changed to read: "The annual fee shall be for each member the sum of two dollars, in addition to which he shall remit to the secretary with each quarterly report, five per cent. of the gross amount of the orders filled by him."

Article VI. was changed by striking out the words, "at the end of each month," and inserting in place thereof the words, "January 1, April 1, July 1, and October 1, of each year."

A very pleasant hour was then spent by the members in discussing means of advancing the interests of the Association, after the adjournment of which the Board of Directors met in executive session.

#### PRESIDENT'S ADDRESS.

The progress of our Association for its first year of existence should, I think, be considered satisfactory. The accomplishments you will note,

by the report Mr. Beatty will submit to you, shows that the public has shown their appreciation of the opportunities offered in proportion to the manner in which our members have made them acquainted with our enterprise. Of course the size of our cities have much to do with the number of orders taken by a member, also the time in which they have had to work ; as some have been with us from the beginning, some only six, four, or two months. But after making due allowances for these circumstances, it is quite plain to be seen that the only cause of our not having had a very much larger exchange of orders, is our allowing the public to remain in ignorance of our facilities for accommodating them. This, however, is only what was predicted by our directors a year ago. It was decided to leave the advertising to each member to do the best he could individually for two reasons ; first it took all the Association's cash to defray expenses which could not be avoided in organizing ; second, your board considered it was best not to sound our trumpets too loud until our machinery was in first-class working order. Now that our membership has increased to a fair size, and the prospect is good for constant additions, with no other expense of any importance, but one in prospect, I recommend carefully expending fifty per cent. of our year's income in advertising. We should make this widely known, and not have the trade confined to the local trade of the members in each city. Unless we do this, and go at it with vigor there will be no object in confining our membership within certain limitations. With a view of further and more careful consideration of this subject, a committee has been appointed to draw plans, procure estimates, etc. Their report will be submitted to the board after the members at large have expressed themselves.

The next item of importance is the preparation of our cable code. While we have already made some headway in securing representatives in Europe, we cannot expect to do much business without a carefully arranged code, as it costs thirty-five cents a word to cable an order. We must be prepared to transmit our orders in a very few words, otherwise the expense would discourage patronage. While we find this absolutely necessary for European business, we shall also find it a saving and convenience for American. This book is in course of construction ; the first copy was submitted to the board for corrections in June. This is one of those peculiar undertakings, however, in which we find that the more we do to it the more we find required to be done.

While this Association is formed for one particular purpose in name, there is no reason why we should not seize every opportunity in bettering in every way, so far as possible, without doing anything which may deprive us of the benefit of our individuality. We will find many ways of doing this by learning from one another. Having already felt the benefit of this practice to a limited extent, I advocate the extension of the same line of benefits. Some of us find it necessary to send out

catalogues or circulars to our customers once or twice annually. A year ago I was attracted by a very neat and carefully arranged circular of Mr. Harry Chaapel's. He kindly gave me permission to copy any part of it, which I did — we being in different localities there is no harm in loaning each other's ideas. A suggestion comes from Mr. Chaapel that we extend this practice somewhat in loaning original cuts, or if possible, having principal parts or the whole printed in one lot. It was in consideration of this subject that I asked for photographs. Relying on the truthfulness of the old and respected idea that two heads are better than one, etc., I would recommend our members joining forces in this way. Mr. Chaapel will be pleased to hear from any members who are inclined to favor this idea. He is a committee of one appointed for this purpose. It strikes me that such co-operation will do much to establish our reputation and keep us up in a straight line to the front.

Now I wish to say a word about preserving our individuality. Our Association is founded on principles which are healthy and productive of good, so long as we preserve them. While there are advantages derived by certain rules of co-operation, no one loses his personal freedom; we can all purchase where we like; we can sell where we like; we can build our greenhouse as we like, or do a business without greenhouses. Each one of us is at liberty to conduct our business as we feel and think best. The rules and regulations a member agrees to live up to do not place any restrictions on his private business at all. All a member really binds himself to do is to consider the Telegraph-Delivery Association as being one of his best customers, and in order to keep its trade he wishes to do all he can to satisfy it. He knows that the Association requires first-class stock delivered always; he knows that it requires prompt delivery always, and that it wants receipts of delivery with each invoice, etc., and if this customer is not pleased with his service, like all other customers, will withdraw its patronage. For the sake of so much more trade and pleasant relations, he should wish to give satisfaction. There is one more reason why he is or should be anxious to live up to the requirements of the Association; that is for the benefit of the free and unlimited use of the Association's trade mark. This is of but limited importance today, but with the care we expect to exercise we hope to have this sign develop a reputation throughout that will be quite valuable to those who are privileged to use it. It is not simply a notice that flowers may be sent by telegraph from his place of business, but that he is a qualified representative of an Association which is noted for fair and efficient dealing. This, of course, is a valuable point yet to be gained, and requires careful work. It is important that our board be constantly on the look-out for flaws. The least bit of an order should not be neglected; for you do not know but a one-dollar order improperly filled today will prevent your receiving a fifty-dollar order the month following. If our Association is not worthy the confidence required for

filling a fifty-cent order, how can we expect to be trusted with large amounts. I have sent out a number of small orders, some of which were given out of pure curiosity to see how it worked, and they paid, some of them very soon after, but one. This unfortunate came close to Christmas time for one dozen roses. The order was given early so we sent it by mail, and received the invoice promptly—one dozen Mermets, \$4.00—but no receipt showing the flowers had been received by party intended. We wrote our correspondent about the receipt, and was told that they had not taken any, but the flowers were delivered O. K. We charged them to our customer, and when our bill went in it was returned to us with the information that the flowers never reached their destination, and they did not think much of our beautiful scheme. Now that order did our Association considerable harm. Of course we did not pay the bill, and we went for our correspondent hot and heavy. It turned out that the flowers had been left at hotel by the florist, but no receipt was taken, and the hotel never gave them over to the proper person. Many other orders have been filled giving complete satisfaction, which is a pleasure to us all as well as our customers. I wish to impress upon our members the importance of receipts. While we wish to cultivate and possess the confidence of our customers, we cannot ask for it point blank. A customer gives you five dollars for a bouquet to be handed to a friend five hundred miles away; he wants to be sure that it is delivered O. K. Of course that person is expected to acknowledge the receipt to their friend the donor, but sometimes they do not; and flowers are frequently sent as feelers to people by others who are not quite sure of there existing any friendship, and it is our duty in a business way to secure our customer in that knowledge. One of our Western members last winter sent an order East. The Eastern correspondent when sending bill, wrote it would not do to ask a receipt of such a family, intimating that they were above it, and our Western member displayed some ignorance in asking for it. This is certainly a mistake, and although it does come from the highly polished East, when a corporation like the Western Union Telegraph Company take a receipt for a twenty-five-cent message, why should a humble florist tremble in asking for a receipt for a five-dollar basket.

One very important problem that confronts us frequently is, what price to put on flowers or designs to be delivered in another city. This was spoken of a year ago, and it was suggested that we could keep posted fairly well on the wholesale price at different points, and that we adopt a plan of doubling them for retail orders. This seems somewhat feasible, but should be carefully considered. I do not feel warranted at present in recommending it. Our retail price in Milwaukee for Cycas leaves has been \$2.00 each for good leaves. It rather surprised a customer to receive a bill of \$10.00 for a pair which had been delivered by telegraph in another State where it costs no more to grow them.

Another item which might be discussed is the charge for messages. I have adopted a uniform charge of fifty cents an order. The last time I figured it they cost us forty-four cents each on an average.

#### SECRETARY'S REPORT.

*Officers and Members of the Florists' International Telegraph-Delivery Association, Greeting*,—Owing to the ill health of your secretary, President Whitnall very kindly offered to get, compile and incorporate in his address, reports from our members showing the amount of business done through our Association during the past year. That he has done it well needs not my endorsement.

The records of your secretary's office show that over four hundred copies of our constitution and by-laws have been sent out to parties whom we desired to interest in our Association; besides these, the secretary has mailed over three hundred personal letters in your interests, in addition to a large number of postal cards and acknowledgments of remittances.

At the present writing we have received no replies from foreign parties to whom we have written inviting them to join, but we have had some correspondence with other parties in relation to the best parties to be secured. This correspondence has mostly been done by President Whitnall and Vice-president Seibrecht.

We have great hopes that Vice-president Seibrecht, who is now in Europe, will be able to secure for us representatives in a number of foreign cities.

Your secretary would suggest that for the first year, at least, the annual dues be remitted to all foreign members, believing that such a liberal policy would secure to us much more readily the representatives we desire. After we are once in perfect working order we will no doubt make it so profitable that they will all be more than willing to pay our annual dues.

No reports of business done for this season have so far been received from representatives in the following cities: Albany, N. Y., Baltimore, Md., Boston, Mass., Brattleboro, Vt., Chicago, Ill., Denver, Col., St. Paul, Minn., Williamsport, Pa., Vienna, Austria.

The following representatives became members too late in the season to do much or any business, though a number of them report filling orders received from other members of our Association: Atlanta, Ga., Annapolis, Md., Bay City, Mich., New Haven, Conn., New Orleans, La., Detroit, Mich., Sheboygan, Wis., Sacramento, Cal., Rochester, N. Y.

The following report no orders received and transmitted by them: Chattanooga, Tenn., Memphis, Tenn.

The tabulation of the reports show the following results for the season from Dec. 1, 1891, to July 15, 1892, but members were being



secured during that time, and some of the reports cover but a few months, and they in a dull time of the season.

The first column shows the value of the orders taken by members for transmission to other cities; the second the value of the orders filled by representatives in the cities named:—

Atlanta, Ga.		\$12 00
Albany, N. Y.		43 00
Baltimore, Md.		54 50
Boston, Mass.		117 00
Brattleboro, Vt.		
Brooklyn, N. Y.	\$5 00	6 50
Buffalo, N. Y.	20 00	25 75
Chicago, Ill.		125 30
Chattanooga, Tenn.		
Cincinnati, Ohio	136 75	36 00
Cleveland, Ohio	120 00	30 00
Colorado Springs, Col.	5 00	
Denver, Col.		19 50
Des Moines, Iowa	18 00	
Detroit, Mich.		3 75
Indianapolis, Ind.	101 69	4 00
London, Ontario, Canada	5 00	
Minneapolis, Minn.		15 50
Memphis, Tenn.		
Milwaukee, Wis.	454 05	14 75
New York City	432 50	483 60
Oil City, Pa.	10 50	
Omaha, Neb.		
Philadelphia, Pa.	120 95	105 54
Pittsburg, Pa.	170 00	21 00
Racine, Wis.	6 50	
Rochester, N. Y.		25 00
Sacramento, Cal.		10 00
St. Paul, Minn.		21 00
St. Louis, Mo.	36 00	41 00
Savannah, Ga.	42 00	
Springfield, Mass.	235 00	8 00
Springfield, Ill.		1 00
San Francisco, Cal.	91 00	48 00
Toronto, Canada		
Utica, N. Y.	8 00	19 00
Washington, D. C.		21 00
* Albuquerque, New Mexico		1 00
* Birmingham, Ala.		10 00
* Columbus, Ohio		5 75
* Dubuque, Iowa		5 00
* Evansville, Ind.		2 50
* Dayton, Ohio		1 50
* Kansas City, Mo.		17 50
* Louisville, Ky.		14 00
* Lawrence, Kas.		2 00
* New Haven, Ct., (Represented now)		2 00
<i>Carried forward</i>	\$2,017 84	\$1,372 94

<i>Brought forward</i>	.	.	.	.	.	\$2,017 84	\$1,372 94
* New Orleans, La.	.	.	.	.	.		10 00
* Providence, R. I.	.	.	.	.	.		20 00
* Peoria, Ill.	.	.	.	.	.		2 00
* Pasadena	.	.	.	.	.		37 00
* San Antonio, Texas	.	.	.	.	.		7 00
* St. Augustine, Fla.	.	.	.	.	.		20 00
* Berlin, Germany	.	.	.	.	.		20 00
* Hanover, Germany	.	.	.	.	.		35 00
* London, England	.	.	.	.	.		45 00
* Paris, France	.	.	.	.	.		70 00
* Worcester, Mass.	.	.	.	.	.		3 00
						<u>\$2,017 84</u>	<u>\$1,641 94</u>

\* No representative. Orders satisfactorily filled by a resident florist.

A number of members do not give the names of the representatives who filled the orders ; thus causing the difference in value between the orders taken and the orders filled columns.

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 Lombard, R. T., Wayland.  
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