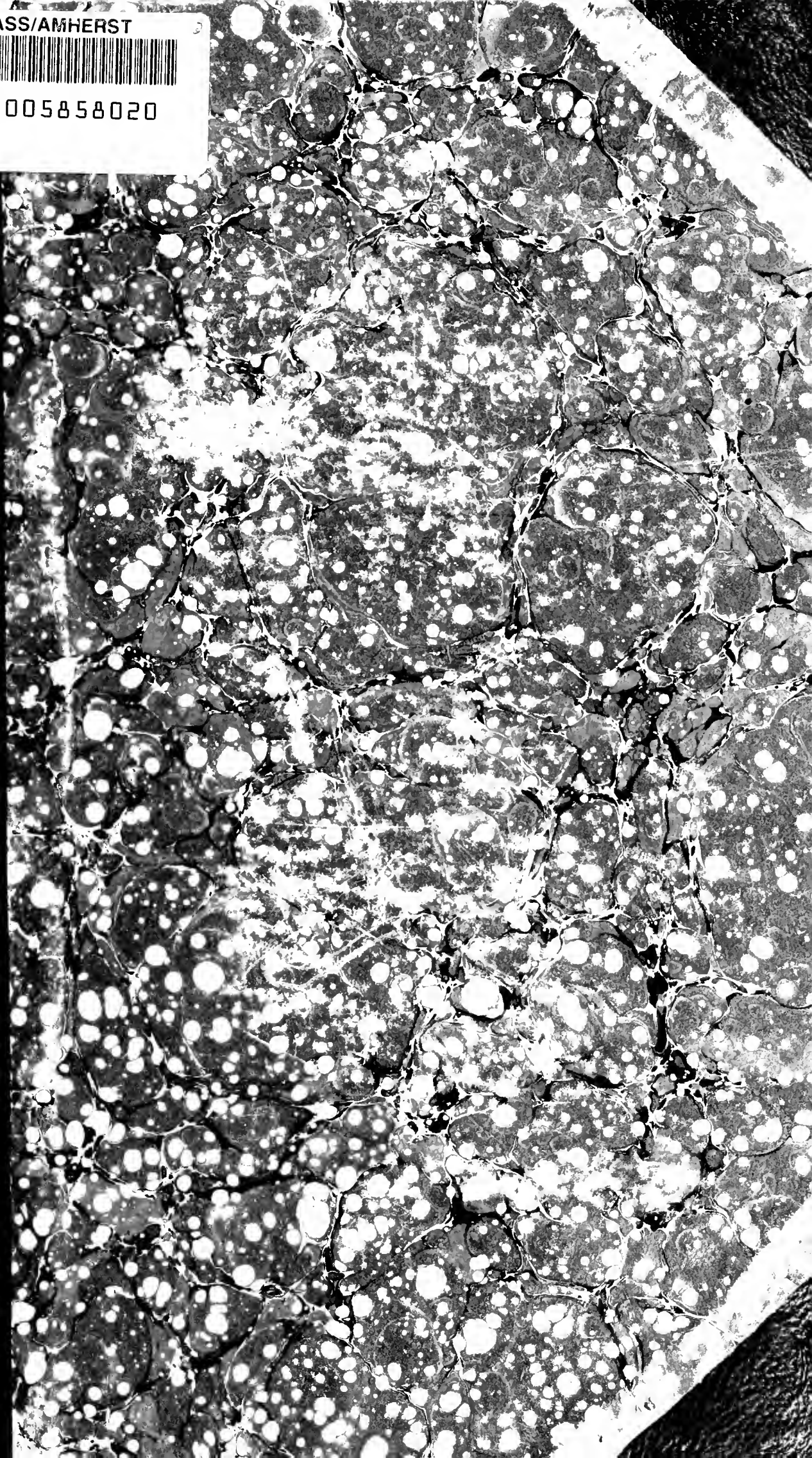


UMASS/AMHERST



312066005858020



This book may be kept out



PRESIDENT ROBERT CRAIG.

5
PROCEEDINGS

OF THE

SECOND CONVENTION

OF THE

SOCIETY OF AMERICAN FLORISTS

HELD AT

PHILADELPHIA, PENN'A,

August 18th, 20th, and 21st, 1886.

PUBLISHED BY ORDER OF THE SOCIETY.

HARRISBURG, PA. :
J. HORACE MCFARLAND, PRINTER FOR NURSERYMEN, FLORISTS AND SEEDSMEN.
1886.

LIBRARY

UNIVERSITY OF
MASSACHUSETTS

AMHERST, MASS.



OFFICERS

OF THE

Society of American Florists,

For 1886-7,

Elected at Philadelphia Meeting, August 20, 1886.

PRESIDENT:

ROBERT CRAIG, PHILADELPHIA, PA.

VICE PRESIDENT:

J. C. VAUGHAN, CHICAGO, ILL.

SECRETARY:

EDWIN LONSDALE, PHILADELPHIA, PA.

TREASURER:

MYRON A. HUNT, CHICAGO, ILL.

EXECUTIVE COMMITTEE:

JOHN THORPE, Queens, N. Y.

ROBERT J. HALLIDAY, Baltimore, Md.

JOHN N. MAY, Summit, N. J.

J. M. JORDAN, St. Louis, Mo.

HENRY A. SIEBRECHT, New Rochelle, N. Y.

C. B. WHITNALL, Milwaukee, Wis.

ALEX. MURDOCH, Pittsburgh, Penn'a

E. G. HILL, Richmond, Ind.

WM. J. STEWART, Boston, Mass.

HAPEL



STATE VICE PRESIDENTS FOR 1887,

Elected and Appointed to Date.

| | | |
|------------------------------|-------------|-----------------------------------------|
| <i>Alabama,</i> | | C. H. REED, Birmingham. |
| <i>California,</i> | | J. H. SIEVERS, San Francisco. |
| <i>Canada,</i> | | C. CAMPBELL, Montreal. |
| <i>Colorado,</i> | | AVERY GALLUP, Denver. |
| <i>Connecticut,</i> | | G. A. DICKERMAN, New Haven. |
| <i>Dakota,</i> | | E. L. DU BELL, Sioux Falls. |
| <i>Delaware,</i> | | M. F. HAYDEN, Wilmington. |
| <i>District of Columbia,</i> | | HENRY PFISTER, Washington. |
| <i>Georgia,</i> | | ED. WACHENDORFF, Atlanta. |
| <i>Illinois,</i> | | A. W. SAWYER, Sycamore. |
| <i>Indiana,</i> | | J. G. HEINL, Terre Haute. |
| <i>Iowa,</i> | | JUDSON KRAMER, Marion. |
| <i>Kansas,</i> | | MISS EMMA BRISTOL, Topeka. |
| <i>Kentucky,</i> | | E. BELL, Lexington. |
| <i>Louisiana,</i> | | JOHN EBLEN, New Orleans. |
| <i>Maine,</i> | | F. H. MOSES, Bucksport. |
| <i>Maryland,</i> | | R. J. HALLIDAY, Baltimore. |
| <i>Massachusetts,</i> | | P. WELCH, Boston. |
| <i>Michigan,</i> | | STEPHEN TAPLIN, Detroit. |
| <i>Minnesota,</i> | | R. J. MENDENHALL, Minneapolis. |
| <i>Missouri,</i> | | LUTHER ARMSTRONG, Kirkwood. |
| <i>Nebraska,</i> | | A. DONAGHUE, Omaha. |
| <i>New Hampshire,</i> | | G. E. BUXTON. |
| <i>New Jersey,</i> | | { J. N. MAY, Summit. |
| | | { PETER HENDERSON, Jersey City Heights. |
| <i>New York,</i> | | { HENRY A. SIEBRECHT, New Rochelle. |
| | | { F. E. McALLISTER, New York. |
| <i>North Carolina,</i> | | G. B. LAMB, Wilmington. |
| <i>Ohio,</i> | { Northern, | ROBERT GEORGE, Painesville. |
| | { Southern, | GEORGE CORBETT, College Hill. |

| | | | |
|------------------------|-----------|-----------------|----------------------------------------|
| <i>Pennsylvania,</i> | { | <i>Eastern,</i> | . THOMAS CARTLEDGE, Philadelphia. |
| | } | <i>Western,</i> | . B. A. ELLIOTT, Pittsburgh. |
| <i>Rhode Island,</i> | | | . GEORGE BURROUGHS, Providence. |
| <i>South Carolina,</i> | | | . Mrs. J. S. R. THOMSON, Spartansburg. |
| <i>Tennessee,</i> | | | . J. J. CRUSMAN, Clarksville. |
| <i>Vermont,</i> | | | . C. E. ALLEN, Brattleboro'. |
| <i>Virginia,</i> | | | . BENJAMIN REYNOLDS, Norfolk. |
| <i>West Virginia,</i> | | | . W. F. KRIEGER, Wheeling. |
| <i>Wisconsin,</i> | | | . WILLIAM CARRIE, Milwaukee. |



◇ PROCEEDINGS. ◇

FIRST DAY—MORNING.

HORTICULTURAL HALL, PHILADELPHIA, *August 18, 1886.*

At the hour appointed for the assembling of the convention, the officers of the society, with Hon. William B. Smith, mayor of the city of Philadelphia; J. E. Mitchell, Esq., President of the Pennsylvania Horticultural Society; and Robert Craig, Esq., Vice President of the Society of American Florists, and President of the Philadelphia Florists' Club, appeared upon the handsomely decorated platform.

The session of the convention opened at 10.30 o'clock, A. M., President THORPE in the chair.

Mr. J. E. MITCHELL, President of the Pennsylvania Horticultural Society, upon being introduced, said:

Members of the American Florists' Association, ladies and gentlemen: In behalf of the Pennsylvania Horticultural Society, it affords me great pleasure to tender to your association the use of this hall for holding your convention therein, and to extend to you a hearty welcome on behalf of our members.

It is very gratifying to our people that you have accepted the invitation of our enterprising florists to hold your session in this city; and rest assured that no pains will be spared by them and their ladies to make your stay among us both profitable and pleasant to you.

I have the pleasure to announce that the officers of the Union League have kindly extended an invitation to you to visit their beautiful building, to which you will be admitted at any time on showing your badges at the door. I am also authorized to extend to you an invitation to visit our new city hall; Mr. MacPherson, the superintendent, will gladly show you through the building. These invitations are extended to both the ladies and gentlemen of your association—and it is an evidence of your good taste that you have brought your ladies

with you to visit our Quaker city. His Honor, the mayor of the city, is present to extend to you an official welcome in behalf of the nine hundred thousand people over whose safety and comfort he so ably presides.

I close by wishing you a pleasant sojourn among us, with an expression of the hope that you will carry to your distant homes some pleasant reminiscences of your visit to the city of brotherly love.

I have the pleasure to introduce His Honor, the mayor of the city of Philadelphia.

Hon. WILLIAM B. SMITH, mayor of Philadelphia, responded :

Mr. President, ladies and gentlemen : There are pleasant lines even in public life, and the present occasion is one of them. It is a real pleasure for me to come to this hall, as I have, to welcome to Philadelphia ladies and gentlemen representing a profession which is akin to the best interests of humanity and civilization, and which, in the results of its handiwork, is near and dear to us both in scenes of gladness and of sorrow. There is, perhaps, no more efficient means of refining and improving our natures than is afforded by a knowledge of the florist's art. To that art, and to the skill with which the members of your profession combine the products of our fields and gardens, we are indebted for the beautifying of our homes and for a healthful influence upon our lives. I desire to say to you, very informally but very earnestly, that the city of Philadelphia—which welcomes at all times organizations founded for the common good and the advancement of the public welfare—is specially pleased to greet your organization as one entitled to a high rank in public estimation.

Philadelphia is a city of which its people are proud, for the reason that within its limits are more happy homes, possibly, than are to be found in any city under the broad canopy of heaven. With a population approaching, if it has not already reached, an aggregate of a million, we have one hundred and forty-seven thousand families residing in their own homes, occupying their own households, without sharing them with others. With our opportunities for the enjoyment of domestic comfort ; with our exemption from scenes of turbulence and outlawry, our people are cosmopolitan enough to guarantee liberty to all who respect law and are law-abiding enough to enforce equality of rights among themselves and respect for the rights of others.

In welcoming you to our midst, I feel that your presence will be fruitful of good to us ; that, by the knowledge of your art which you may impart to us, the popular taste for floriculture will be stimulated and improved ; and that your stay with us will be of mutual benefit

in cementing the bonds of friendship, which should ever exist between the people of all sections of the United States. The city in which the nation had its birth, and which recently celebrated the one hundredth anniversary of popular government and American independence, is certainly interested in fostering that spirit of nationality which it has done so much to uphold. On behalf of the city of Philadelphia, I desire to say to you, each and all, that if our offices can be of any service to you in securing for you admission to any of the public institutions that you may desire to visit, or in tendering any attentions that may be agreeable to a stranger within the walls of a great city, you may count upon receiving the same instantly. Assuring you of the good wishes in your behalf of the good people of this city; trusting that your meeting will be a successful one, and believing that you will have cause to preserve many happy recollections of your trip here, I again bid you a hearty welcome."

MR. J. M. JORDAN, of St. Louis, (a member of the executive committee of the Society of American Florists,) being here introduced, responded in behalf of the society as follows:

Mr. Mayor of Philadelphia, Mr. President of the Horticultural Society of Pennsylvania: In response to your hearty welcomes, I have to say that we are very thankful. We have been made to feel at home, made happy in the few hours of to-day that we have already spent here, and the prospect which the good citizens of Philadelphia hold out to us flatters our hearts, and we feel that it is good for us that we came a long distance to receive your cordial greetings. I hope that our stay with you will be such that we will commend ourselves to your hearty approval; that we will keep within those bounds of decorum which should never be transgressed by the horticulturist; that, in receiving these hospitalities from the generous hands of the city of Philadelphia, we will not fail to appreciate the friendly motives which inspire them, but will carry with us to our homes a pleasant remembrance of them; and that the day may not be far distant when we will have an opportunity of welcoming you to a city of the far West.

Thanking you, ladies and gentlemen of Philadelphia, for your kind expressions of regard, and the earnest greetings uttered in your behalf, we hope that our stay may be pleasant for you and for us.

The first order of business, according to the programme, was here disposed of by the Secretary in calling the roll of officers of the society and the State Vice Presidents.

OPENING ADDRESS BY PRESIDENT THORPE.

The CHAIRMAN (Vice President Robert Craig in the chair): I have an exceedingly pleasant announcement to make. The next business on the programme is an address by a gentleman who needs no introduction—the father of this society and our President to-day—Mr. JOHN THORPE. I have the pleasure of presenting him to you.

Mr. Thorpe addressed the society as follows :

It is again my pleasure to greet you, and I do so with unbounded satisfaction. I am proud to say that the two-year-old seedling is developing finely, and already shows signs of bearing good fruit. I can see in the near future the Society of American Florists taking a position equal to any organization in the country. The best talent in our profession is heart and soul with us, and is ready and willing to make its mark.

The progressive florist is a man who must necessarily be interested in many other branches of horticulture, all of which are good.

LOOKING AHEAD.

When the society gets more deeply rooted, and is well stayed from every quarter, I hope to see one of its branches shaped into an experimental garden where inventions, appliances, and structures of all kinds can be displayed; attached to it there shall be also a good library. This is a branch worthy of the support of those fortunate individuals who have not only bountiful wealth, but liberal hearts to bestow it. With such assistance, we could spread into every town and village in the country.

Another branch should be the establishment of local exhibitions, controlled by committees appointed by the society, whereat new and desirable plants and flowers shall be reported upon, thus giving encouragement to those members who are debarred from taking part in competitions where distance is too far from the large cities.

I hope to see established, on a sound basis, yet another branch, in the shape of a mutual benevolent association, which shall be so trained as to afford shelter for those members who are overtaken by misfortune. This would be of incalculable good. Perhaps this is not the time to handle such an important question, but I think it will be well for us to ponder over it, as the sooner all good undertakings are begun the better for those concerned. Would it not be wise for us to appoint a committee to report as to the best methods of forming such an association at our next general meeting?

We must also be patient and persuasive in insuring the first side-branch that grew to make a fresh start. From some cause or other, it (the hail question) got checked, and I do hope that before the termination of this meeting we shall have solved the question.

These, then, are a few of the bristling shoots of the society which require attention.

THE PROGRAMME.

We present to you to-day a programme rich in those topics in which we are the most interested. Indeed, if signs do not fail, we shall have such a fund of information to digest as to give us material for next year's consideration.

I cannot help expressing myself concerning this master-piece which the executive committee has given us. All the subjects selected are of the greatest importance, and for the reason that great subjects should be given to many minds, this is the time to get the most out of them.

BUSINESS OUTLOOK.

During the past year, business on the whole has been equal to that of previous years, excepting, perhaps, in some localities. The unfortunate labor troubles during the spring caused a falling off in the sale of market plants. By market plants it will be understood that I refer to those plants which are grown and sold in flower; for, be it remembered, the mechanics and artisans, with their wives, are large buyers of plants when labor is not in the throes of disturbance. The sales of cut flowers have been greater than ever. Stock of the finest quality never sold higher, on the average, and it truly can be said that stock of poor quality never sold lower.

No radical change has been made as to new additions or eliminations of varieties. Of course, roses are in the van, with a longer list than usual of other flowers before arriving at the last one.

Many varieties of summer-flowering plants are now grown for cut-flowers, and meet with ready sales in limited quantities. A few years since, all, or nearly all, the flowers sold at this season were those used only for funerals.

The demand for good roses (at really good prices) was greater than the supply during June and part of July, and some growers are providing a supply for "all the year round," which is another milestone on the progressive way.

The new roses, *American Beauty* and *William F. Bennett*, introduced in 1885, have proved so far very desirable, and may be safely placed among the list of good things. The new candidates this year are *The Bride*, a sport from *Catherine Mermel*, which seemingly has all the good qualities of its parents, and *Her Majesty*, which as yet has not had a fair opportunity to flower.

EXHIBITIONS THE CAUSE OF DEVELOPING THE BUSINESS.

There are so many divisions in our calling that what I have to say is applicable to all. Don't be afraid to exhibit whatever you have to dispose of. Do it always. Make exhibitions, join your local societies, and be there with something. Never mind if you do not happen to secure the first prize; everybody cannot have the first prize until the millenium; go again and show next time. While you are aiming to get first prizes, you are doing good to your business and floriculture generally.

If there had been no exhibitions, half of the number of florists would not be in the business, and the other half never could have come to Philadelphia to-day.

Exhibitions made *Baroness Rothschild*, *Magna Charta*, and *Paul Neron* roses realize the prices that they have. Exhibitions made the forcing of Dutch bulbs assume such proportions. Exhibitions made the sale of chrysanthemums for the past two years foot up to a million of plants. So don't go away with the impression that exhibitions are useless, and that if you do not happen to have a roll of bills to take home with you from each one that you are the loser. You are sowing the seed, the crop of which will be harvested as it ripens—the more you sow, the larger the crop.

Some, I am sorry to say, are not interested in public exhibitions, from the fact

that they are always thinking of the cost and too much of the time; but I can assure you that it is money and time well expended.

By the aid of the press, even outside of the professional, the society has obtained a very widespread reputation. We cannot forget how much interest the Cincinnati press took in our first convention. Nearly all the professional papers and magazines also had representatives there, and the society is greatly indebted to them all. It was there that *The American Florist* and *Popular Gardening* made their first appearance.

The country is still in need of a comprehensive, well-managed horticultural weekly, one that will give sound information on all gardening matters in such a manner as to be easily understood by our many patrons who are pining for correct information.

The backbone of the florist's business has been much strengthened the past few years by the accession of so many gentlemen having a taste for floriculture and the means to gratify it. It is to this class that we have to look for our best support. Many build fine houses, lay their grounds out tastefully, and at once begin to look around for something more. First, perhaps a half-dozen roses and the same number of shrubs are bought from some itinerant agent; though the prices charged are high, and the roses do not bloom every day, nor the shrubs have scarlet and blue flowers on at the same and all the time, the ground has been turned over and an interest awakened. This is followed by the addition of a bed of roses from the local florist, then a plantation of bulbs, and so on until in a short time a fine collection is gathered together, and the next gentleman becomes interested. This is a trade worth cultivating, as in nine cases out of ten the actual money outlay is not a consideration when satisfaction is given. To illustrate what can be done by such an acquaintance, I will relate to you what occurred to a friend whom you all know.

It was a blustering day in March, 1883, when a ruddy-faced gentleman and his groom, in a two-wheeled vehicle drawn by two horses, tandem, abruptly pulled up in front of our friend's greenhouses. The gentleman, alighting, asked for some one who could sell him roses, and remarked that he wanted none but the best plants, but must have the following kinds: *Ma Capucine*, *Niphetos*, *Cornelia Cook*, *Catharine Mermet*, *Souvenir d'un Ami*, *Perle des Jardins*, *Madame Cusin*, *Bon Silene*, *Magna Charta*, *Baroness Rothschild*, *General Jacqueminot*, *Anna de Diesbach* and *Marchal Nil*. Our friend, the florist, listened attentively, and then the following questions and answers were given:

"What do you intend doing with these roses?"

"I want them to plant in my garden to flower all summer."

"How did you obtain such a list?"

"I have always been interested in roses, and so during the winter, whenever I have attended either a dinner or reception, I made it a point to get the names of the roses from whoever I could, so as to have the best, and the list I have given you pleased me the most, as I saw the flowers; and I want them to live out all winter."

"Well, out of the whole list you have given me, there are just four varieties that will answer your purpose. I can supplement those four by twelve or more kinds that will give you satisfaction."

Which he did, and the result was that this same gentleman has to-day five hundred roses in his garden because he was well advised. He wants now all the new roses that will fill the bill. Last year he obtained six plants of *American*

Beauty at three dollars apiece; this year six of *Her Majesty* at two dollars and a half each; and this is not all, for he advertises our florist friend among all his friends, and I know that this same florist has done over two thousand dollars' worth of business. Why? Because when the list of roses so unsuitable for the purpose was condemned and suitable ones recommended, confidence was gained and they became fast friends.

AMERICAN SEEDLINGS.

The raising of new varieties of plants from seed, I am pleased to say, is receiving more attention than formerly; but yet this is not carried out to the extent that it ought to be.

It is a branch of floriculture worthy of the greatest encouragement, and is fraught with a great amount of good, as we are to-day too much dependent upon importations for our new introductions. The new varieties obtained from importations are about ninety-five per cent. against home productions, and when it is acknowledged that, as a rule, more than two thirds of those imported are never heard of after the first or second year's cultivation, it is time for us to be up and doing. I know it is frequently remarked that we have already too many varieties of plants and flowers, and that the old varieties are good enough. If this doctrine had always been believed, where should we look to-day for our *Perle des Jardin*, *Mermet*, *Bride*, *Bennett*, or *American Beauty* roses, our *Grandiflorum* chrysanthemums, *America* verbenas, or *Golden Dawn* geraniums? In fact, none of the fine varieties of flowers grown to-day would have ever been known had those to whom we are indebted for the best of everything believed that the old varieties were good enough. I want to impress upon you all that the very best old varieties were once new. In connection with this, I wish to say to the young members of our society, that as soon as ever you get back again to business, select some popular plant for improvement. Begin raising seedlings by judicious cross-fertilization and careful selection; use sound judgment in laying the foundation and a model to guide you in building; then, by patience and perseverance, the results will be more than satisfactory; furthermore, I can promise you, after long years of experience, one of the most delightful pursuits there is in the world. The task is never finished, and, with perseverance, results far more than expected will be realized.

I am afraid I cannot guarantee you very large fortunes of money in following this particular line of business, but you can make a fortune of another kind, such as Bryant, Emerson and Longfellow made and left us. We are the poets in our spheres, and those who are devoted to the raising of new varieties will be remembered, if not as millionaires, as having contributed something toward life's enjoyment.

We have reason to congratulate ourselves over what the society has accomplished during the past year. It will be remembered that we had to fight an obnoxious postal bill in Congress, which proposed to double the amount of postage on all plants, bulbs, and seeds. With the interest which the members have taken, and the work of the committee that visited Washington to oppose the passage of the bill, no change was made in the rates of postage. Now, I maintain that if the society has done no further good than to defeat this bill, we have reason to be well satisfied.

I will ask you to consider at this meeting a plan of electing members, wherein we shall have some protection against imposition. We have been very happy to-

gether so far, and I think we should endeavor to keep so. If nothing more is done, candidates for membership should be indorsed by at least two members.

IN MEMORIAM.

And now comes the saddest part of my duty. I have to report that four of our members have been removed by Him who will ultimately remove us all. First on the list is WILLIAM BENNETT, a man known the country over as a thorough horticulturist, equally well informed in all of its branches; a grower of plants without an equal; a genial friend, loved and respected by all who knew him.

Second is HENRY J. SACKERSDORFF, who had established himself as one of the most expert rose-growers. Ambitious, honorable, full of knowledge, desirous to please, his late employer pays high tribute to his work.

Third, JAMES HODGES, a man long connected with the profession and greatly respected.

The last one is JAMES YOUNG MURKLAND, a member of our executive committee, for eight years the secretary of the New York Horticultural Society, secretary of the American Seed Trade Association, and connected with the house of Young & Elliott for twenty years. He was one of the shining lights in his profession, was devoted to horticulture, most brilliant in conversation, a veritable encyclopaedia of knowledge, full of ambition, and no truer friend ever lived. His loss to us all is irreparable.

(NOTE.—Upon the conclusion of his address, at this point, President Thorpe was privately informed of an announcement in a New York journal of this date, when he made the following additional statement:)

Mr. THORPE: Ladies and gentlemen: It is my sad duty to announce that the name of another of our members has been added to the list of the dead. I read in the New York *Sun*, of this morning, that Mr. BOOMKAMP died very suddenly yesterday. The statement is as follows:

“William H. Boomkamp, of Passaic, an importer of flower bulbs at 47 Broadway, New York, died yesterday of an overdose of laudanum, which he had taken for insomnia. He was one of the last passengers taken from the sinking *Oregon*, and was going to Holland this fall to be married to a lady in Amsterdam.”

TREASURER'S REPORT.

Mr. MYRON A. HUNT, of Chicago, (Treasurer of the Society,) in response to the call of the chair, said:

Mr. President and gentlemen: The Treasurer has to report for the fiscal year ending August 17, 1886, as follows:

“The Society of American Florists, in account with M. A. Hunt, treasurer.

Receipts.

| | |
|----------------------------------------|-------------|
| By balance from 1885, | \$183 00 |
| By membership fees for 1886, | 687 00 |
| | <hr/> |
| | \$870 00 |
| | <hr/> <hr/> |

Disbursements.

| | |
|------------------------------------------------------------------|----------|
| To gas bills at Cincinnati, Ohio, | \$13 76 |
| To rent, paper, tables, etc., | 44 00 |
| To stenographer, | 62 75 |
| To postage and stationery, | 41 15 |
| To printing reports, stationery, etc., | 271 90 |
| To bill for postage, stationery, telegraphing, expressage, etc., | 132 90 |
| To expense account of secretary, | 25 00 |
| To additional salary voted secretary for 1885, | 50 00 |
| To secretary's percentage for 1885 and 1886, | 68 70 |
| To premiums offered at Philadelphia Chrysanthemum show, | 50 00 |
| To lithographs, | 10 60 |
| To badges for Philadelphia meeting, | 60 00 |
| To cash on hand, | 39 24 |
| | \$870 00 |

Examined and found correct.

J. N. MAY.
 ROBERT J. HALLIDAY.
 JOHN THORPE.

The Treasurer would report further that the membership for this year, a large portion of which is now present, is four hundred and fifteen.

As some of the members present failed to receive a copy of the proceedings of our last annual meeting, and may have felt aggrieved or annoyed thereat and blamed the secretary for it, it is perhaps only just that I should state that the failure occurred through no fault of our secretary. The cause of it was this: During the day on which the convention attended the reception given to it at Dayton by the Cincinnati florists, all the papers which had accumulated during the sessions of the convention were stolen by some one. This happened in our transit from Dayton to Cincinnati. It, of course, removed from beyond our reach all data relating to the payment of the membership fees. The cash accounts with the society were proved correct because the Treasurer knew the amount of money belonging to the society, and was not dependent for that data upon the books which were lost. I would state further, that any member who did not receive it will be able to obtain the report of the Cincinnati meeting, during the meeting now being held, from the secretary.

SECRETARY'S REPORT.

Mr. E. GURNEY HILL, of Richmond, Indiana, (the secretary,) being next called upon, came forward and read his report. It was as follows:

August 18, 1886.

Mr. President and Ladies and Gentlemen:

The executive committee met in Philadelphia November 11, 1885, and a second meeting was held April 1, 1886, at Summit, New Jersey, when the programme was revised and a few changes made. The subjects had been selected with great care as to their general interest, and assigned to gentlemen well able to present them clearly. The essayists will give us little theory, probably, but we shall have the benefit of their actual experience.

The past year has been a very busy one, the society growing fast, and inspiring interest among florists everywhere. Of the work accomplished we must not fail to record the defeat of Senator Wilson's bill proposing an increased rate of postage on fourth class matter. I believe the sharp eye of Mr. Alexander Murdoch detected the first move in this matter. He promptly reported to the society, the officers went to work, and the members at call displayed an energy, promptness, and unanimity of action most commendable in an organization not two years old. This occasioned a great deal of correspondence, in which your secretary was almost completely submerged. Letters, protests, telegrams, editorials, circulars, poured in on the Senate committee having this in charge, until they must have decided that the florists of the country are an innumerable throng. Mr. Wilson not only withdrew his bill, but presented a second one, calling for a reduction of postage on plants, scions, buds and bulbs. It will be well for us as a society to watch closely any proposed changes in postal rates.

The interest in our second annual meeting was manifested very early in the year, and promptly, May 15, we began work with the railroads for securing good rates. Owing to pool arrangements, both East and West, the work has been attended with most exasperating difficulties. We are sure that Messrs. Hunt, Thorpe, Craig, Vaughan, Whitnall, and others will verify the statement that up to a very late date our dealings with these corporations were unsatisfactory and vexatious in the extreme. After over two months of correspondence and frequent journeyings to secure personal conference with railroad officials, we, at the last moment, obtained a reasonable rate over one of the great Trunk lines. This has given us great satisfaction, although arrangements were perfected so late that we could advertise it only by personal letters.

The society numbers on its roll the leading florists of the country, and also a majority of the young, energetic, pushing men of the craft. By a little personal work on the part of each member, it can be made to double its enrollment in a short time.

The best feeling prevails, and your secretary wishes to express his gratitude for the uniform courtesy so kindly extended him in the prosecution of society business. He has, however, one suggestion to offer: When a member of the society takes the name and fee of a new member, it should be reported to the treasurer or secretary at once. The secretary needs the name of every member of the society immediately upon entering, that any society notices, programmes, reports, or papers may be forwarded promptly. When a name is withheld and not reported till the annual meeting, the new member loses all the society notices up to that time. Most of our members who have induced others to join with us have retained the names until the annual meeting, and then reported their list of accessions. This has led to much unnecessary correspondence, as these new members almost invariably write the secretary, reporting their payment of dues, and asking why he has not forwarded receipt, report and badge. As they believe their fee has been promptly forwarded, and no attention paid them, a suspicion of carelessness is created, and a lack of confidence in the secretary.

While making suggestions, I would also propose that the society pay the mileage of the members of the executive committee to the executive committee meeting, as too great an expense is entailed upon these gentlemen.

I wish to apologize for not a few imperfections in last year's report, and also for the misspelling of names. To avoid this the coming year, members addressing the president will please give their names and States, that the officers may

easily identify them and place the names, properly spelled, against the words uttered.

We have to report the death of five members during the year: Mr. J. Hodges, Globe Village, Massachusetts; William Bennett, Flatbush, New York; H. J. Sackersdorff, Bayside, New York; James Y. Murkland, New York city, and William Oberly, Richmond, Indiana.

At the close of this meeting, I shall return to the society the trust held by me since the preliminary organization. Press of private business compels me to decline further service in this capacity. I have tried to fill conscientiously and to the best of my ability this important office. The work connected with the secretaryship increases yearly, and the measure of time required is no small item. With a high appreciation of the honor conferred, I return you hearty thanks for your kind coöperation.

The CHAIRMAN (Vice President Craig): The next business, according to the programme, is "enrollment of new members and payment of dues;" but, at the request of the secretary, if there is no objection, we will defer that for the present, and take up the order which immediately follows on the programme, viz: An essay upon "What the Craft has been Doing the Past Forty Years."

The gentleman who presents this paper has been, for almost half a century, in the front rank of horticulture in this country. He has made his mark by unflagging perseverance and successful effort. I have the pleasure of introducing to you the essayist, Mr. Peter Henderson, of Jersey City Heights, New Jersey.

Mr. PETER HENDERSON here made his appearance at the president's desk, and was cordially greeted by the society in long-continued applause. He read as follows:

Like nearly everything else in this fast age of the world, floriculture has made an advance in the past forty years so astonishing that the wonder is, when we look back, how, in so many things, our operations were then so primitive and crude.

Forty years ago, I doubt if there was a green-house having a fixed roof, on the whole continent in use for commercial purposes; at least, I have no remembrance of ever having seen one until about 1857, when the system was advocated by Peter B. Mead, in the *New York Horticulturist*. Previous to that time, all green-house structures for commercial purposes were formed of portable sashes, and nearly all were constructed as "lean-to's," with high back walls, and none were connected—all were separate and detached—placed at all angles, without system or plan. Then the heating was nearly all done by horizontal smoke-flues, although here and there was a crude attempt at heating by hot water, by some private individuals for their own use, as early as 1835; but the first use of heating by hot water on anything like a large scale was done in 1839, by Hitchings & Co., who heated a large conservatory for Mr. William Niblo, of New York; and from that time until nearly twenty years after heating by hot water was almost exclusively confined to green-houses and graperies or private places, as few professional gardeners in those days could afford to indulge in such luxuries. All

the work had to be done by smoke-flues, which, together with the green-house structures, was usually the work of their own hands.

Heating green-houses by steam, to the best of my information, was unheard of in the United States at that date, though I am informed by Mr. Isaac Buchanan, of New York, that when he was employed in the Botanic Gardens of Edinburgh, Scotland, as early as 1830, the green-houses there, which consisted of fifteen thousand square feet of glass, were successfully heated by steam, but that later for some reason this method had been abandoned, and hot water had been substituted. So it would appear that the use of steam heating with us to-day is, like many other things in human progress, but the revival of a lost art.

To give an instance of how excellent methods long in use have been abandoned and forgotten, I may mention that some fifteen years ago, on a visit to Philadelphia, on calling on our friend, W. K. Harris, he showed me where, with one fire, he successfully heated a green-house twenty by one hundred feet, by the excellent plan of returning the flue so that the chimney was placed on top of the furnace. It was, no doubt, original with Mr. Harris, and I gave him the credit of the invention, which I described in the *American Agriculturist* of that date. But it had no sooner been printed than a gentleman in Salem, Massachusetts, wrote me, saying that if I would refer to the transactions of the London Horticultural Society for 1822, I would find the same plan there described; but like many other valuable things it had been lost sight of and forgotten, for there were few books, and fewer magazines, obtainable by the gardeners in those days.

Heating green-houses by steam here for commercial purposes was, I believe, first successfully practiced by E. H. Boehman, in Pittsburgh, about 1875, but it is only in the past five years that its merits have been so fully proved.

Progress is slow in many things, mainly for the reason that publicity is not given to new ideas; hence the great value of such an association as ours. It is somewhat singular that few, if any, of the large green-house establishments in England yet use steam; and it may be that we are yet to show them that it is not only much cheaper, but, I believe also, the best method of heating for any green-house structure having five thousand square feet of glass.

Not only has a great advance been made in the structure of green-houses and their heating, but methods of propagating and growing plants have also been much improved upon. The propagator, forty years ago, for the few large establishments in the country, was generally imported from England, and was usually a most important personage—often full of mystery and overweening conceit, who guarded his knowledge, of which he had often not a very large stock, with a miser's hand. One of these gentlemen was a sort of autocrat in the green-house establishment of the late Robert Buist, when I worked there in 1844. He not only refused to impart any knowledge he possessed on the subject, but actually locked the door of the propagating house against all his fellow employés; and he was sadly put out one day when a sarcastic wag tacked to the door of the propagating house the following transposition of Goldsmith's famous couplet:

“ And still we gaze, and still the wonder grows,
How one small head can carry all he knows.”

We are glad to know that few of that ilk can get a foothold here to-day. The knowledge of propagating has now been so diffused by books and magazines devoted to floriculture, and the rules laid down are so simple, that all the mystery that was thrown around it in those early days has been dispelled. But every

now and then—even now—we find some fellow arrogating to himself some “special secret” in our trade. There are no secrets in horticulture. The laws that govern the germination of a seed, the rooting of a cutting, or the taking of a bud or graft, are the same now as they were a thousand years ago, and any one pretending to a “special” knowledge (unknown to others) in the matter is either an ignoramus or an impostor. Of course experience or special advantages give a knowledge that the want of such cannot give. But the underlying principles never change, though undoubtedly in the methods of making them available, we have made vast strides in this country, particularly in the matter of propagating, in the past twenty years. Whether we have made much advance in the classes of plants grown now, from what was grown forty years ago, there may be some question. Certain it is that there were many fine varieties of plants then grown which we fail to find to-day, particularly in the hard wooded or New Holland section, such as heaths, epacris, correas, pimelias, etc., etc. Mr. Buist, of Philadelphia, and Mr. Hogg, of New York, over half a century ago, both had collections rich in these classes, together with nearly everything desirable in stove and green-house plants, but they gradually became diminished, as it was found that their culture was attended with special care in our hot and dry summers. Sales diminished in consequence, and their collections were allowed to run down, to be replaced by such plants as were found to be better adapted to our tropical summers.

But the most wonderful advance in floriculture has been in the construction of cut flowers into bouquets and other designs. Forty years ago, in New York, in constructing a simple hand bouquet, some of us did not know enough to use a thread to keep each flower in place as the construction went on, and it was some years later that the center stick was used to steady the structure. The wire design man did not put in an appearance until nearly twenty years later, and when a cross or wreath of flowers had to be made, the one was usually constructed on pieces of lath on which the flowers were tied, and the floral wreath had the ground-work of a piece of old barrel hoop or a willow twig. The bouquet was usually a one-sided affair, the ground-work being a flat bunch of arbor vitæ through which the flowers were drawn. Occasionally, a round bouquet was attempted by some artist of local fame, but with a result that must have done violence to the feelings of the poor flowers that were used in the structure.

The character of the flowers used for cut flower purposes has also been radically changed; forty years ago camellia flowers freely retailed at one dollar each, and Philadelphia used to send thousands to New York florists at the holidays, getting five hundred dollars per thousand; while roses were then going a begging at one tenth of that sum. Now the rose is queen indeed, and the poor camellia finds none so poor as to do her homage. The culture of tuberose came a little later. I find from an old schedule of prices that in 1865 tuberose were quoted in November at eight dollars per hundred, and a reference to my own books shows that in that year my receipts from a house ten by one hundred feet of tuberose sold for fifteen hundred dollars in November; now they are rarely sold at all in New York unless to the poorest classes—Dame Fashion has stamped them out, as she, twenty years before, stamped out camellia flowers,—and just here comes the question, may there not be danger of a rebound in the rose boom? May there not be danger ahead in so many of us placing so many eggs in one basket, fascinating though the basket be?

The increase in the sales of all products of floriculture in the past forty years

has certainly kept pace with most other industries, and has probably exceeded many. In January of 1844, I was employed by a New York florist, who did nearly the whole business of the city at that time. His sales of cut flowers for New Year's day of that year footed up the sum of two hundred dollars. I have but little doubt that the aggregate sales of cut flowers in the city of New York, on the first of January, 1886, were not less than one hundred thousand dollars, and the aggregate for the past year cannot be short of three millions, which is probably twice that of any European city of its size. An equal advance has been made in the output of plants. We have good reason to believe that Mr. William Elliott, the well-known horticultural auctioneer of New York city, often sells more plants in two hours from his warerooms than were sold during a whole season by the florists of New York in 1844. I know that he repeatedly sells at one sale fifty thousand plants; and it is exceedingly doubtful if that number was sold in New York during the whole year in 1844. The past season there was probably shipped and sold in the market and at auction not less than fifty millions of flowering and ornamental plants, of which perhaps one tenth was sold at auction. The aggregate value of the sales can only be approximated, but I should think it safe to say that the average would be quite five cents apiece, or two million five hundred thousand dollars. Miss E. L. Taplin, a most careful writer, in an article in the January number of the *Floral Cabinet* for 1886, says:

"According to the best information, there are over eight thousand florists established in business in this country, who, with their work people, make a considerable showing in the population. The number of Americans engaging in the business increases yearly, for, though England contributes the largest quota to the trade, with Germany and France following closely, Americans are now waking up to the possibilities of the business. Allowing four hundred feet of glass-covered surface to each florist,—a low estimate,—would give a total of three million two hundred thousand feet, or six hundred and thirty acres of glass surface. Last year the trade sold twenty-four million cut roses, and one hundred and twenty million carnation flowers."

If the business increases in the same ratio for the next forty years, rest assured the now somewhat humble florist will have a place in the community; and that the increase will be even greater, there is good reason to believe. In the early days of floriculture, nearly all the men engaging in the business were old countrymen, who had been private gardeners, often lacking in education and intelligence, and utterly untrained, from the nature of their occupation, in business habits. Now hundreds of young men, with their better opportunities of education, are training direct in the business in all sections of the country; and I think it safe to predict that the leading florists, forty years hence, will be far better business men than even the most prominent among us now. And it may be that if, when the Society of American Florists meets again in this good old city four decades hence, some other veteran, now a stripling here to-day, will tell, as I have done, of the primitive ways of the craft as practiced "forty years ago."

The CHAIRMAN: I am sure you will agree with me when I say that the gentleman from New Jersey (Mr. Henderson) has given us a very interesting paper, and one which, when it appears in the reports of the society, will bear reading more than once.

I see by the programme that the committee has arranged, and I

think very wisely, that we shall devote a little time to a glance at the past. There are many gentlemen present—veterans in the service—whose experience would give great value and interest to their words, and I hope they will now, as the spirit moves them, favor us with some of the results of their observations. If no one is prepared to respond, I will take the liberty of calling on Mr. Saunders, of Chicago, for a few remarks.

MR. EDGAR SAUNDERS, of Chicago, (correspondent of *The Prairie Farmer*.) responded to the call of the chair, as follows:

Mr. Chairman, ladies and gentlemen: I did not come prepared to make a single remark at this meeting, having other business before me; but as one of those who may probably be considered as the older members, having been engaged in the business of floriculture nearly as far back as the time to which the author of the essay, Mr. Henderson, has referred—although what we at that time thought was considerable of a business was, in fact, but a small affair as compared with the transactions of any one of many floriculturists in later days—I will venture to make one or two suggestions in response to the call.

One thought that occurred to me as our friend, Mr. Peter Henderson, was speaking was this, that we are greatly indebted for the advancement of florists' interests in this country to the public parks, which are becoming well distributed all over the country and are even appearing in our wild West. The floral plantings and displays which are invariably seen in these parks are proving of great benefit in giving the public an insight into the beauties of floriculture, and attracting popular attention to the styles of flowering plants and to their appearance when in masses. Possibly the time may never come when the private grounds of our wealthy fellow-citizens in this country will compare in extent with like inclosures in the old world, although you have here in the East, I understand, some pretty large private places; and therefore the public parks are, for that reason, more worthy of commendation because of the facilities they afford for attracting attention to and imparting information concerning the skill of the florist and the value of his work. These floral combinations are sometimes rather fanciful; and I have heard it said by men in the trade—and I believe the observation is a common one in Europe—that these odds and ends that are to be seen in parks are hardly worthy of the attention of florists, but I repeat that they are of great value in educating the popular taste. I have often observed in Chicago the attention which the outlines of animals, of sun-dials, of portraits and representations of floral carpet work have attracted. A portrait of General Grant, last year, is specially worthy of mention in connection with

this phase of the subject. On the other hand, a fine piece of planting, the only object of which is to show the peculiarities and beauties of the individual plants, would be comparatively unnoticed by the public.

With respect to the bouquet business, to which the essayist has referred, I have to say a word. In 1853, the city of Albany, of which I was then a resident, was supposed to be unable to furnish bouquets that were considered sufficiently handsome for bridal purposes. My friend Hendrick, if present, will undoubtedly say they can do it now. I was then a private gardener in that city, and was requested by my employer to procure from New York city bouquets for a bride. These, when they arrived, appeared to be so different from any I had seen that I proceeded at once to ascertain exactly of what they were composed. Notes were made by me of the results of my investigation as I proceeded, and I now regret having left those notes at my home, as by reading them here I could "a tale unfold" that would astonish this society. (Merriment.) I began my work on a bouquet by picking off portions on the outside, piece by piece, and unwinding the thread which held the whole in place. I found that the flowers were fastened to pieces of rushes, and, upon concluding my labors, discovered that I had unwound a quantity of cotton thread which, in actual length, exceeded that usually contained on an ordinary sized spool. It was a fanciful-looking arrangement, having three or four or more camelias interwoven in it. I do not know where that bouquet was made, but I do know that its method of composition led me to do some thinking in regard to it, and I can positively say that I made a number of such bouquets afterwards, and they were said to be "very nice." (Renewed merriment.)

Another reminiscence that occurs to me—one that perhaps Mr. Peter Henderson and others of the older members have knowledge of—has reference to the horticultural societies that were started then and which I was accustomed to attend. If my recollection is correct, some difficulty was experienced at that time in inducing people to attend the exhibitions given by such societies. I recollect well the efforts made to that end, and the fact that a number of fancy plants were brought down to the place for our exhibition from Albany. Mr. Menand often brought there some heaths and various plants of that sort of the best possible growth.

I observe, among the members present, a gentleman from the city from which I come who has long been, and still is, practically engaged in the business of a florist, while my own time has been largely occupied by my duties in connection with the press. That gentleman and I have had some battles upon the issue between us as to whether he

or I made the first venture in floriculture. He may, perhaps, have in mind some reminiscences of that early time to which I have referred. I allude to Mr. Charles Reissig, of Chicago.

The CHAIRMAN (having had a consultation with the gentleman here called upon) stated that Mr. Reissig requested to be excused from speaking at this time, and that his request was granted, but that the convention would expect to hear from that gentleman before its close.

He added that ten minutes remained of the time which had been set apart, according to the programme, for "Reminiscences by members of the society."

Mr. ROBERT McCROY, of Thompsonville, Connecticut, addressed the chair. He remarked that he thought the time would be more profitably occupied, and the duty of the society performed, if attention was now given to the present wants and interests of florists and the mere reminiscences of the past temporarily ignored. He asserted that the prosperity of floriculture, like that of all other businesses, depended upon the workingmen engaged in it rather than upon the enunciation of mere theories such as the convention had heard to-day.

He continued: No trade or occupation can be successful except by the coöperation of the workingmen engaged in it. You cannot write a book, build a steam engine, or drive a plough without calling upon the workingman to help you. We are here as laboring men to look the facts in regard to our business fairly in the face, and to consider the actual condition of that business: but, before this convention breaks up, we will discuss whether steam or hot water is the better for heating, and, when we have got through with the subject, no living mortal man will be able to tell whether there is any reason for preferring one to the other. We will discuss whether this or that house is the better kind for keeping our plants in good condition, and, after it all, we will say that we really cannot tell which is the better. We have made no real improvements or actual advancement in our art as compared with the progress of other industries. The discovery of the cotton-gin brought the price of cotton down at once, but what invention in our art has saved any labor?

The CHAIRMAN here reminded the speaker of the necessity, in view of the limited time remaining, of confining his remarks more closely to the subject for discussion.

Mr. McCROY responded with an emphatic "yes, sir," but, regardless of the admonition of the chair, went on in the general line of thought upon which he had started, creating much amusement by his earnestness. He continued:

What I want to do at this stage of the convention is to set men

thinking on what they are doing, and on where they have arrived in their business. Now, it is said there are so many flowers and plants auctioned in New York, and I say that the auctioning of flowers and plants has injured every workingman here and every other one in the business, and has taken from the workingman his bread. It is the truth I tell you, gentlemen. I hold in my hand a resolution on this subject, which I desire to present.

The CHAIRMAN here explained that the presentation of resolutions not being in order at this time, he was obliged to ask the gentleman from Connecticut to withhold his proposition for the present, as ample opportunity for its consideration would be afforded at a subsequent stage of the proceedings. He added that as economy of time was desirable, the convention would be glad to hear, in the ten minutes remaining, from some of the older members present. The chair then named, as one whom he thought well qualified to instruct and interest the audience, Mr. C. L. Allen.

IN MEMORIAM—JAMES Y. MURKLAND.

Mr. C. L. ALLEN, of Garden City, New Jersey, came forward and said:

Mr. Chairman, ladies and gentlemen: Our President, Mr. Thorpe, in referring a few days ago to a subject that has not been mentioned here, asked me to speak to you upon it. I allude to the death of our friend, Mr. James Y. Murkland. As I cannot trust to my memory in the presence of an audience such as the one I have now the honor to address, I have committed my thoughts to paper, and will now read what I have written.

It is pleasant to speak of a departed friend when little, if any, occasion exists for mental reservation. It is doubly sweet to say a kind word when it can be said impartially, and when we are free from that bias which evolves from a long personal friendship. In a business way, I have known Mr. Murkland well for the past fifteen years. During this time, we were ever friendly, but never intimate friends until the day previous to his death. We had much to do with each other in the society work, and we differed materially in our methods, as well as in social and political ethics, yet we worked together in the most perfect harmony, and respected each other's opinions and feelings most sacredly. While his opinions were of a positive character, based upon his keen perception of right and duty, and upon what he considered the best possible way of accomplishing a given purpose, at the same time, if a better plan than his was shown, he would lay aside his own opinions and adopt the better, and would do this most

cheerfully and with alacrity. His was in many respects a most beautiful character. I do not pretend to say he was faultless; men with positive opinions and strong personal characteristics seldom are. But of James Y. Murkland, we can truly say that we have rarely met a man in whom we saw more virtues to admire and imitate, and less vices to abhor and shun.

It may be truly said of him, as Emerson said of John Bradshaw, that "wherever he sat down, honor came and sat beside him." We can add to this that integrity, purity, manly virtue, kindly sympathy, the rich fruits of honor, ever followed him, not as sentinels, but they were simply the outcroppings of his noble manhood, and followed him as the needle follows the magnet. His industry, both physical and mental, was phenomenal. Rapidity of thought, happily blended with executive ability, enabled him to accomplish tasks easily that many would have thought impossibilities. He was to the New York Horticultural Society what Samson was to the Philistines—a giant; and had not that society been nourished from the fountains of his noble intellect and indefatigable industry, it would have died from exhaustion long ago.

While intellectual ability, persistent industry, and thorough honesty were his marked characteristics, they were not alone all that illumined his character. All these were results, throbbings of a high moral and spiritual nature.

The CHAIRMAN: As the hour for closing the morning's session is rapidly approaching, we will now proceed with the enrollment of new members and the payment of dues. The delegates will please come forward to the secretary's desk. He is prepared to receive them.

(NOTE.—Complying with the invitation, the delegates to the convention congregated around and in the vicinity of the table at which the Secretary and Treasurer were stationed, and the work of enrollment and receiving of dues occupied the time until noon.)

EXHIBITION OF FLORISTS' SUPPLIES, ETC.

In the interim between the sessions, the delegates visited the lower hall of the convention building, which had been reserved for the display of floral and other exhibits. The exhibition hall was well filled with plants and flowers, pottery, green-house apparatus, appliances for the destruction of insect life, specimens of lithograph and printing work, model green-houses, a grand collection of cacti and aquatic plants, and a variety of florists' supplies. This magnificent exhibition remained open to the public throughout the four days' sessions of the convention.

FIRST DAY—AFTERNOON SESSION.

President THORPE announced a change in the order of business for to-day, (necessitated by the trip to Atlantic City to-morrow,) in consequence of which the programme for the remainder of the day had been re-adjusted so as to read as follows:

AFTERNOON SESSION.

Treatment of Tea Roses during the Summer, with List of Best Bedding Varieties, ANTOINE WINTZER, West Grove, Pa.
 Hybrid Perpetual Roses for Out-door Summer Bloom, with List of Best Varieties, JOHN HENDERSON, Flushing, L. I.
 Pot-grown Roses for Market Purposes: their Care and Treatment, ROBERT CRAIG, Philadelphia.

EVENING SESSION.

Fungoid Diseases of the Rose, . . . H. J. SACKERSDÖRFF, (dec'd,) Bayside, N. Y.
 Model Green-Houses and How to Build Them . . . JOHN N. MAY, Summit, N. J.
 Pot-grown Decorative Foliage Plants for General Purposes, JAMES TAPLIN, Maywood, N. J.
 Carnations and their Treatment, JOSEPH TAILBY, Wellesley, Mass.

THE QUESTION-BOX.

The PRESIDENT here stated that the question-box, for the reception of queries which any member might feel disposed to propound, had been placed in position. He invited members to deposit therein any pertinent questions upon which they desired information, and assured them that these would receive attention at the earliest possible moment.

(NOTE.—A large printed placard containing the invitation just stated by the President was here placed on the box to indicate its location upon the platform, in a position where it was easily accessible.

COMMITTEES ON EXHIBITS.

The PRESIDENT further announced that committees to make awards on the exhibits displayed in the lower hall had been constituted as follows:

On Cut Flowers—William K. Harris, Luther Armstrong, Alexander Murdoch, Louis Siebrecht, William J. Stewart, A. D. Rohrer.

On Plants and Bulbs—James Taplin, R. J. Halliday, W. C. Smith, Robert George, Walter W. Coles, Avery Gallup.

On Florists' Requisites and Supplies—Charles Reissig, W. H. Williams, H. A. Siebrecht, James Hendrick, James Griffiths, J. N. Gasser.

On Lithographs, Printing, and Miscellaneous—C. L. Allen, H. A. Dreer, F. R. Pierson, Henry Sunderbruch, J. G. Heintz.

On Green-House Structures and Appliances—Peter Henderson, J. T. Anthony, John Henderson, J. H. Taylor, Frank Pentland.

The PRESIDENT stated that exhibitors would be required to have all their goods in position at four o'clock, P. M., this day, and that the committees would begin their labors two hours later, reporting at the earliest possible moment.

The PRESIDENT here read a communication (received through Mr. William F. Dreer, of Philadelphia,) from the Zoölogical Society, signed by William Hacker, treasurer, tending to the Society of American Florists an invitation to visit the Zoölogical grounds in Fairmount Park.

The PRESIDENT also read the following communications :

MASSACHUSETTS HORTICULTURAL SOCIETY,
BOSTON, *July 6, 1886.*

At a meeting of the Massachusetts Horticultural Society, held July 3, 1886, the following vote, offered by Edward L. Beard, was unanimously passed :

Voted, That the secretary be authorized to send to the Society of American Florists, at their meeting in Philadelphia, August 18, a letter expressing the sympathy of this society with the aims and efforts of the Society of Florists, and that William J. Stewart be the bearer of the letter as the representative of this society.

In performing the duty devolved on me by this vote, I would say that as one of the oldest horticultural societies in this country, we appreciate the advantage of organization among the florists of the country. Although the commercial view of floriculture may occupy a larger place in your discussions than it does in our own, we know that those who gain their livelihood by the cultivation of these most charming productions of nature, also appreciate the beauty of the flowers and foliage which they aim to bring to the utmost perfection: and this society, which has done so much to develop horticulture as a means for the delight and higher education of the people of this country, will welcome every effort made by the florists of America to elevate and ennoble their calling.

Very respectfully,

ROBERT MANNING,
Secretary Massachusetts Horticultural Society.

To E. G. HILL, Esq.,

Secretary of the Society of American Florists.

NEW ORLEANS HORTICULTURAL SOCIETY,
August 12, 1886.

To the Society of American Florists:

The bearer, Mr. John Eblen, will represent the New Orleans Horticultural Society at the meeting of American Florists in Philadelphia. As our representative and as a progressive florist, we take pleasure in recommending him to the good offices of the Society of American Florists.

E. DAGER,
President.

H. A. DESPOMMIER,
Secretary.

Mr. EBLEX, upon invitation of the chair, here came forward and was presented to the convention as the representative of the New Orleans florists. The gentleman bowed his acknowledgments and retired.

The CHAIRMAN (Vice President Craig in the chair:) We will now proceed with the regular order of business—a paper on “Treatment of Tea Roses during the Summer, with List of Best Bedding Varieties,” by Mr. Antoine Wintzer, of West Grove, Pennsylvania; a gentleman who has, perhaps, had more experience with roses than any other in this country.

Mr. ANTOINE WINTZER here appeared upon the platform, and, after a friendly greeting from the convention, read the following paper:

TREATMENT OF TEA ROSES DURING THE SUMMER, WITH LIST OF BEST VARIETIES.

How should we treat our roses? What is the best culture to give to have them grow and bloom satisfactorily? What is the best soil to plant in, and what should be done to keep off insects? These and numerous other questions are frequently asked by those purchasing roses.

SELECTION OF SOIL AND LOCATION.

Roses thrive best in a good rich loam. The soil should not be too light, or so heavy as to retain moisture after heavy rain-falls; in the latter case, under-drainage is necessary. Should the soil be inclined to bake hard after rains, a judicious application of sand or coal ashes will prove beneficial. After suitable soil has been selected, avoid planting near large trees, as the shading of the ground robs the roses of sunlight required for a vigorous, healthy growth, and the roots are equally injurious, as they absorb the moisture necessary for the proper nourishment of the plants.

PREPARATION OF SOIL.

The proper preparation of the soil for roses is of the utmost importance. If the plot of ground is large, it can be plowed to good advantage; sink the plow about nine or ten inches. A great deal depends on this; as is well known, the roots of roses run deep, and should have every chance. After plowing in manner described, the surface should be thoroughly pulverized with a good harrow, followed by a land-roller, after which the ground will be in condition for planting. In beds of ordinary size the operation can be better performed with a good spade, with which the ground should be dug deeply and then carefully raked.

FERTILIZERS.

In our experience, the best results have always been obtained from the application of well decomposed barn-yard manure in liberal quantities. When this cannot conveniently be obtained, a dressing of fine bone-meal will give good results; it can be applied on the surface and raked in.

SELECTION OF PLANTS AND PLANTING.

The selection of roses for out-door planting should be carefully considered. In our experience, we have always found that good healthy young plants, well

grown in two and one half or three inch pots, have usually given the best results. If immediate effect is the desired object, good plants from four to five inch pots can be planted to advantage.

The proper time for planting, as is understood, varies according to locality. It is usually safe to plant roses when the fruit trees are in blossom. The distance apart for planting depends on the manner of cultivation; if it is intended to work the roses with a horse, the rows should be three or three and one half feet wide, and the plants from ten to twelve inches apart in the rows. In ordinary-sized beds, where good effect is desired for the first season, the rows can be about fourteen inches wide, and the plants ten inches apart in the rows. Before planting, the roots of plants should be well soaked with water. The proper way to plant roses is to put them in a little deeper than they were growing in the pots. It is now very important to press the earth firmly around the plants. This can easily be done with the foot, and will prevent the air from drying the roots and also helps to retain the moisture. After this has been well done, the ground can be leveled nicely around the plants. We usually prefer to use the back of the rake for this purpose.

CULTIVATION.

After the roses have been planted a few days, the surface of the ground should be lightly stirred with a hoe. This should be done with care, as many plants are frequently injured by careless hoeing. After the roses have attained a fair growth, they should be worked to the depth of three or four inches, but it must always be understood that this operation should be done carefully, so as not to injure the growing plants. In our opinion, the ground should be worked about once a week until it is covered, after which any straggling weeds that may appear can be pulled by hand.

TREATMENT OF MILDEW AND GRUB-WORMS.

If the foliage of your roses become affected by mildew, dust them with fine sulphur. Sometimes, after a rose has been growing finely for some weeks, it suddenly hangs its head. In nearly all cases, this will be found to have been caused by a thick white grub worm, from one half to three fourths of an inch in length, which cuts the roots. The best method to get rid of this pest is to dig under and around the affected plant, when they can mostly be found and destroyed, preventing further ravages. This grub is the larvæ of the common brown May beetle, and is numerous in old sod ground. Should the plant be attacked by caterpillars, hand picking is the best way to get rid of them—poisons are generally unsafe.

THE SELECTION OF VARIETIES.

This is no easy task to undertake, for no matter how well informed in regard to varieties in general, persons differ in taste and opinion, and what might be considered a good variety for the purpose in question by one would be considered second or third-class by another, and for no specific reason. Then again, some varieties are first-class in one section of the country, and almost worthless in another. In this respect they are much like any other plant or shrub. Nearly all are good in localities adapted to their nature. When we take into consideration the vast extent of our country, reaching from the Atlantic to the Pacific oceans, and extending from the Great Lakes to the Gulf of Mexico, it can easily be understood that a variety suitable for the Eastern and Middle States would, perhaps, be of little value in a Southern climate or in the Pacific States.

With the preceding qualifications, I submit the following list of roses which, in a general way, have given the best results in this section. It will be noted that many high-class varieties have been omitted; this is because they could not properly be classed under the heading of this article. Varieties of the following classes are mentioned in this list: Tea, Bourbon, and China.

LIST OF GOOD BEDDING ROSES.

| | |
|--------------------------|------------------------|
| Agrippina. | Letty Coles. |
| Aline Sisley. | Louisa de la Rive. |
| Anna Olliver. | Louis Richard. |
| Archduke Charles. | Lucullus. |
| Archduchess Isabella. | Mad. Bravy. |
| Aurora. | Mad. Bosanquet. |
| Belle fleur d'Anjou. | Mad. Camille. |
| Bon Silene. | Mad. de Vetry. |
| Charles Rovelli. | Mad. de Watteville. |
| Catharine Mermet. | Mad. Falcot. |
| Comtesse Riza du Parc. | Mad. Joseph Schwartz. |
| Comtesse du Barbentanne. | Mad. Lambard. |
| Coquette de Lyon. | Mad. Margottin. |
| Cornelia Cook. | Mad. Villermoz. |
| Cramoise Superieur. | Mad. Welche. |
| David Pradel. | Marie Ducher. |
| Devoniensis. | Marie Gulliot. |
| Douglas. | Marie Sisley. |
| Duchess de Brabant. | Marie Van Houtte. |
| Duchess of Edinburgh. | Papa Gontier. |
| Etoile de Lyon. | Perle des Jardins. |
| Gen. de Tartas. | Red Malmaison. |
| Glorie de Dijon. | Regalis. |
| Hermosa. | Rose Nabonmand. |
| Homer. | Rubens. |
| Isabella Sprunt. | Safrano. |
| Jean Ducher. | Sombrenil. |
| Jean Pernet. | Souv. de la Malmaison. |
| Jules Finger. | Souv. de Mad. Pernet. |
| Laurette. | Souv. d'un Ami. |
| La Phoenix. | Vallee de Chamounix. |
| La Princess Vera. | |

Upon the reading of the paper being concluded—

Mr. JAMES PENTLAND, of Baltimore, said: I would like to ask the gentleman (Mr. Wintzer) a question which I think is pertinent to the subject. A rose that I heard him mention just now I have known myself for the last forty-five or forty-eight years—the *Cramoise Superieur*. I have bought that rose in three different places, and it has turned out to be the old *Rubens* that I used to know forty-five or forty-eight years ago; and I think there are gentlemen here whose

experience has been the same as mine. I would like to have the nomenclature of that rose determined so that I may know whether I am correct. The gentlemen mentioned another rose as the *Souvenir d'un Ami*. I would like to know whether he has allusion to that good old rose, which is not a red rose exactly, but is a salmon-colored rose like the *Levison Gower*. I bought that rose at three different places out West for the *Levison Gower*, but it turned out to be the *Souvenir d'un Ami*. I ask whether growers are not getting these names confused.

Mr. WINTZER: I beg pardon—I did not have *Red Safrano* on my list. I called from the list *Red Malmaison*, a new rose that was sent to us a few years ago from France. I grow *Red Safrano*, but I did not put it in this list.

Mr. PENTLAND: I did not speak of *Red Safrano*, but of one that you call *Cramoise Superieur*. It is a synonym of *Agrippina*, as *Queen's Scarlet* is a synonym of *Agrippina*.

Mr. WINTZER: I beg to say that I do not claim to be an authority on rose nomenclature. I simply give you these names as I have them. The French growers are supposed to know what they are raising—a man is supposed to know his own children—and they send us the *Cramoise Superieur* by that name. The rose that we have grown as *Rubens* is one that is very similar in color and habit of growth to the old *Deroniensis*. Unlike the gentleman from Baltimore, I cannot go back in my recollection forty-five years, for I am not forty-five years of age. It is true, as he suggests, that errors in nomenclature may have occurred in the past, but we cannot apply the remedy, as we are obliged to take history as we receive it. If the historian erred, how are we to correct his error?

The CHAIRMAN: Permit me to state that Mr. Halliday, of Baltimore, is expected to prepare a paper covering this matter. I do not know that it will clear up the question as to the nomenclature of this particular rose, but I know that that gentleman has something to communicate on subjects kindred to the one here referred to.

The CHAIRMAN: The next paper is from one of our oldest and most successful rose-growers. I am much pleased that we have the gentleman with us to-day, and I present to you Mr. John Henderson, of New York.

Mr. JOHN HENDERSON, of Flushing, Long Island, New York, here read an essay on "Hybrid Perpetual Roses for Out-door Summer Bloom, with a List of Best Varieties." It is as follows:

HYBRID PERPETUAL ROSES FOR OUT-DOOR SUMMER BLOOM.

It is, perhaps, unnecessary that I should go into the history of the rose, as that is a subject that has been so often and so fully discussed by others more competent than myself. I will, therefore, only remark that the rose has been the acknowledged "queen of flowers" for over two thousand years. It was Sappho, I believe, who first christened the rose the "queen of flowers," and it still maintains that distinguished position, and probably will ever continue to do so. I might here quote a few lines from her writings:

"Would Jove appoint some flower to reign
In matchless beauty on the plain,
The rose (mankind will all agree)—
The rose, the queen of flowers should be."

Hybrid perpetual roses are so called from crossing the hybrid China and hybrid Bourbon with the China, Bourbon and tea-scented varieties, by this means obtaining semi-perpetual blooming roses, which are named by the French growers *hybrides remontantes*—that is, roses that throw up flowers again. They are among the most beautiful of our summer-flowering roses, having size, color and fragrance combined. They are of quite modern origin, the first of the race only dating back to 1837. At first there was a great similarity in color, but the improvements made during the last thirty years have been so great that we now have almost every shade of color except yellow and blue.

CULTIVATION.

If a permanent rose-bed is desired, with the view of growing fine roses fit for exhibition, it will be necessary to choose an open situation, but protected from cold, cutting winds, and then ascertain what the sub-soil is. If of a wet, clayey nature, it should be thoroughly drained after which the ground should be trenched eighteen to twenty-four inches deep, mixing with it during the process some good, rotted manure and an occasional sprinkling of coarse ground bone. A bed thus formed will last for years and will well repay the extra expense of making it. But for persons of limited means, or those who have only a city garden and who wish to grow a variety of plants in it, I would recommend that whenever a rose-bush is to be planted, the ground be dug out one foot square and eighteen inches deep, then filled in with some good, tarfy loam, having some rotted manure mixed through it.

PLANTING.

Some prefer to do this in the fall, but from my own experience, I prefer to plant in the spring, as soon as the ground can possibly be worked, for when done in the fall, the plants are apt to be thrown out of the ground by the action of the frost, so that in many instances the work has to be done over again. In planting, roses on their own roots are to be preferred, but these cannot always be obtained; besides, there are some kinds that succeed better worked than on their own roots. When worked plants are used, they should always be planted deep enough for the stock to be completely buried in the ground two or more inches, for, when this is the case, after a time the plant will throw out roots above the stock, so that practically it is supported by its own roots as well as the additional roots of the stock. The plants should be well trodden in, and as soon as they commence to grow, spread over the ground a good mulching of manure, which should be forked in during the summer. In the fall, spread lightly among the plants a

coating of loose litter or leaves, or even plough or hoe up the earth to the stems; the latter I have seen most effectually done; it preserves the lower branches and eyes from the frost, and in the spring can be drawn from them, and the ground forked over and mulched with manure as before.

PRUNING.

This should be done the second or third week in March or later, according to the weather. I have known the first week in April to be early enough. In pruning, first take out all the small or sickly-looking shoots, then prune the remainder from six to eighteen inches, according to their growth. On examining the roses in the spring, it will frequently be observed that many shoots have black blotches or rings on the last year's growth. In all such cases, the shoots should be cut away below such spots, even if in so doing you have to prune to the plant itself. It is very difficult to give any fixed rules for pruning otherwise than according to their growth, but as a general rule, moderate-growing sorts should be pruned to about six inches, and strong-growing ones from twelve to eighteen inches. Let me note here that the whole pith of the subject of pruning and after-growth depends on the careful observance of the habits of each individual plant, also the object in view, as some prefer to keep their plants dwarf and bushy, and to do this they will necessarily have to be kept well pruned in; but others, such as have small gardens and to such I more particularly address these remarks—should not prune too closely, but rather aim to make fine, tall bushes, as all village gardens are generally so surrounded by trees, fences, etc., that it is only when the bushes get a considerable height that they can obtain the necessary light and air.

This has been brought prominently to my notice during the last two years by observing the gardens of two of my neighbors, who have had some of the finest hybrid and moss roses that one could desire. They were planted three years since from two-inch pots, and this summer when in bloom were seven feet high, and covered with a mass of flowers, a sight worth going a distance to see. They had been but slightly pruned each year, and had grown so tall that they were above the surrounding fences, and thus were enabled to get plenty of light and air, which no plant requires more than the rose.

It is estimated that since the appearance of the first hybrid perpetual roses, over one thousand varieties have been introduced to commerce. In making a selection from so numerous a list, we naturally wish the best, and the question arises, what are the qualities most to be desired? *First*, I would say a strong constitution, producing fine, robust foliage, with flowers of good substance, fine form, distinct colors, and, if possible, sweet-scented. *Second*, a disposition to bloom freely in the fall. This latter quality can be greatly enhanced by good cultivation.

I have made a selection of over sixty varieties that have come under my personal observation, but as I am aware that roses, like strawberries, succeed better in some localities than others, I therefore placed myself in communication with Messrs. Ellwanger & Barry, of Rochester; John B. Moore & Son, of Concord, Mass., and the Dingee & Conard Company, of West Grove, Pa. I might here mention that I had an opportunity of submitting my list to Mr. Wintzer, who so ably represents the Dingee & Conard Company, and he fully indorsed all my varieties as succeeding well with them; therefore, for the sake of brevity, it will be understood that my list embraces that section of the country also.

SELECTION OF JOHN HENDERSON, FLUSHING, L. I., AND ALSO OF THE
DINGEE & CONARD CO., WEST GROVE, PA.

- | | |
|-------------------------|---------------------------|
| Abel Carriere. | *Jules Margottin. |
| *Abel Grand. | Jules Finger. |
| *Alfred Colomb. | *La France. |
| Anna Alexieff. | Louis Van Houtte. |
| *Anna de Diesbach. | *Lyonnaise. |
| *Antoine Mouton. | *Mabel Morrison. |
| Baron de Bonstettin. | Madame Charles Wood. |
| *Baroness Rothschild. | Madame de Cambaceres. |
| *Baronne Prevost. | Madame Gabriel Luizet. |
| *Beauty of Waltham. | *Madame Victor Verdier. |
| Boieldieu. | *Mlle. Annie Wood. |
| *Boule de Neige. | *Mlle. Eugenie Verdier. |
| Captain Christy. | Magna Charta. |
| *Charles Lefebre. | *Marguerite de St. Amand. |
| Comtesse de Serenye. | Marie Baumann. |
| *Coquette des Blanchés. | Marquise de Castellane. |
| Countess of Oxford. | *Marquise de Mortemart. |
| Dr. Andry. | Marshall P. Wilder. |
| Duke of Albany. | Mary Bennett. |
| Duke of Edinburgh. | Maurice Bernardin. |
| Edward Morren. | *Merveille de Lyon. |
| *Elise Boelle. | Monsieur Boncenne. |
| Elie Morel. | *Paul Neron. |
| *Elizabeth Vigneron. | Paul Verdier. |
| E. Y. Teas. | *Pierre Notting. |
| *Fisher Holmes. | Pride of Reigate. |
| François Michelin. | *Prince Camille de Rohan. |
| *General Jacqueminot. | *Pride of Waltham. |
| *General Washington. | *Queen of Queens. |
| Hippolyte Jamain. | Senateur Vaisse. |
| *Jean Liabaud. | Ulrich Brunner. |
| John Hopper. | |

SELECTION OF ELLWANGER & BARRY, ROCHESTER.

- | | |
|----------------------------|---------------------------|
| *Alfred Colomb. | *John Hopper. |
| *Anna de Diesbach. | *La France. |
| Baroness Rothschild. | *La Reine. |
| Baron de Bonstettin. | Mabel Morrison. |
| Boieldieu. | Madame Gabriel Luizet. |
| *Charles Lefebre. | *Marguerite de St. Amand. |
| *Climbing Jules Margottin. | *Marie Baumann. |
| Comtesse de Serenye. | *Marshall P. Wilder. |
| Coquette des Alps. | Maurice Bernardin. |
| Countess of Oxford. | Merveille de Lyon. |
| Edward Morren. | *Paul Neron. |
| *Elise Boelle. | *Pierre Notting. |
| *Eugenie Verdier. | Prince Camille de Rohan. |
| *Fisher Holmes. | *Rev. J. B. Camm. |
| *François Michelin. | *Victor Verdier. |
| *General Jacqueminot. | |

* Those marked with a star bloom well in the Fall.

SELECTION OF TWENTY-FIVE OF THE BEST VARIETIES DOING WELL IN
BOSTON, BY JOHN B. MOORE & SON, CONCORD, MASS.

| | |
|----------------------|--------------------------|
| Abel Carriere. | La Rosiere. |
| Alfred Colomb. | Louis Van Houtte. |
| Baron de Bonstettin. | Madame Eugenie Verdier. |
| Baroness Rothschild. | Madame Gabriel Luizet. |
| Charles Lefebre. | Madame Marie Finger. |
| Duke of Edinburgh. | Madame Victor Verdier. |
| Duke of Teck. | Marguerite de St. Amand. |
| Duke of Wellington. | Marquise de Castellane. |
| Etienne Levet. | Monsieur E. Y. Teas. |
| Eugenie Verdier. | Merveille de Lyon. |
| François Michelin. | Thomas Mills. |
| Jean Liabaud. | White Baroness. |
| John Hopper. | |

In addition to the above, there is a growing class of roses called "Climbing Hybrids." These are not strictly climbers in the same sense as the Ayrshires, Boursoults, etc., but should rather be called "Pillar Roses." They are strong, rampant sports from well-known hybrids, with flowers in every way identical with those of their parents, and will grow from ten to twelve feet high. This class should be encouraged either for small or large gardens. In the former case, from their height they could be more easily cleared of those pests of the rose, the aphides, red spider, and caterpillars, by syringing with any of the different solutions for that purpose, as from their height the under part of the foliage can be well sprayed, and it is on the under part of the foliage that the principal trouble comes. Secondly, they can be made very effective in large gardens, either planted singly or in groups of three or more varieties, or in rows, thus forming a beautiful background for the dwarf-growing varieties. The following are well adapted for this purpose, but the observant rose-grower will find many other rampant-growing sorts that he can make use of for the same purpose:

| | |
|------------------------|---------------------------|
| Baronne Prevost. | Glory of Waltham. |
| Bessie Johnson. | General Jacqueminot. |
| Captain Christy. | Eugenie Verdier. |
| Charles Lefebre. | Jules Margottin. |
| Countess of Oxford. | Madame de Cambaceres. |
| Duchess of Sutherland. | Maurice Bernardin. |
| Duke of Edinburgh. | Paul Verdier. |
| Edward Morren. | Princess Louise Victoria. |
| Glory of Cheshunt. | Red Dragon. |

I might here mention that to insure getting these varieties it will be necessary to ask for the climbing varieties of these sorts, as they are called in the catalogues.

Before closing this article, I would like to make a few remarks on rose-growing in general. The great lack of personal observation of the requirements of each particular rose, in regard to its cultivation, pruning, etc.; also want of attention and quickness in detecting caterpillars, mildew, etc., is the cause of failure. When the first leaf is discovered folded by a caterpillar, go for it, and then hunt over the whole lot continuously from that time. So, also, when the first speck of mildew is discovered, do not wait till to-morrow, but apply the remedy right

away. Unsuccessful rose-growing is due to lack of attention to what at first is a little matter. When the leaves are eaten away like lace-work, the bushes white with mildew, it is rather late to begin to apply remedies. Such persons will never succeed in growing good roses.

Mr. JAMES HENDRICK, of Albany, New York: *Mr. Chairman, ladies and gentlemen*: You doubtless, as well as myself, have been specially entertained and instructed by our friend from Long Island, Mr. John Henderson; and if the men of "the hub" do not know how to grow hybrid perpetual roses after so excellent a paper, they deserve to be called "men of the hub" no longer; and if you gentlemen from the West and the East, and we poor fellows from the middle district, are ignoramuses after hearing this paper, we deserve no longer to be rose-growers or growers of anything else. Th paper, I think, deserves the thanks of this association, and I feel great pleasure in moving now that the thanks of the association be given to Mr. Henderson for his very able and instructive essay.

The motion of Mr. Hendrick was adopted by a unanimous vote.

Mr. HENDRICK: Now I would not make a bridge of my friend Wintzer's nose, and, while thanking one man, fail to thank another. Although he has given us the names of roses that have bloomed since Adam was a boy until now, he has given evidence of having exercised great care in the preparation of his essay, and deserves our cordial acknowledgment of it. I move that the thanks of the association be given to Mr. Wintzer for his paper.

The motion of Mr. Hendrick was adopted by a unanimous vote.

Mr. McCROX, of Connecticut, moved that the thanks of the society be tendered to Mr. Peter Henderson, of Jersey City, New Jersey, for his article read at the morning session.

The motion of Mr. McCron was adopted by a unanimous vote.

The CHAIRMAN (Mr. J. M. JORDAN, of St. Louis, in the chair): We will now be favored with a paper by Mr. Robert Craig, of Philadelphia, upon the treatment of pot-grown roses, etc.

Vice President CRAIG here came forward, and, for some time, held the attention of the convention upon the subject of "Pot-grown Roses for Market Purposes—Their Care and Treatment." His essay was received by the audience with many evidences of appreciation, and was as follows:

POT ROSES FOR MARKET PURPOSES—THEIR CARE AND TREATMENT.

Roses in pots will always be of great importance to the market gardener, as they are one of the main sources of his revenue, and it is well worth while to consider which are the best varieties to grow, and what are the methods by which they can be best developed at the minimum cost; not forgetting that first quality

is the prime consideration, and must always be kept in view. Nothing is easier than to waste time and material in the production of plants, so that, although the result is a good article, the cost has been too great. It is related of Horace Greeley that when he was farming, he raised the best turnips that had ever been grown in his section, but when he estimated the value of the labor and materials expended upon them, he found they had cost him exactly \$1.12 apiece. He could not sell them at a profit! The problem, from a commercial point of view, is to produce good plants by the best and quickest methods.

Most of the varieties, especially the teas, hybrid teas and hybrids, can be grown more profitably under glass in summer than when planted out-doors, especially in this section of the country. As market gardeners usually have their houses empty in summer, this use of them will not be costly, and when the difficulties of out-door culture are considered, the plan proposed is the better one. I am aware that many good growers still plant in open ground most of the varieties, but how frequently are they disappointed in the size of the plants in the fall! A few strong-growing kinds, such as *Magna Charta*, *Jacqueminot*, *Hermosa*, *Agrippina* and *Madame Plantier* may, on new ground, in favorable seasons, grow to a sufficient size, but this is not the case with such valuable kinds as *La France*, *Madame Charles Wood*, *Baroness Rothschild*, and many others: but all sorts worth growing at all, will, under glass, with suitable treatment, grow to a large size.

I am informed, on good authority, that in some sections of the country (particularly in parts of the South) roses can be grown to extremely large size in one season. Of course the above remarks do not apply to such favored localities. It certainly cannot now be done in the neighborhood of Philadelphia and New York, and many other sections, as we all know. Flatbush, Long Island, and Union Hill, New Jersey, where roses are extensively grown for market, are cases in point. In both these places, ten or twelve years ago, roses would grow in one season large enough for six-inch and seven-inch pots; now they do not attain one fourth that size. This falling off is not caused by continual cropping on same ground, for the failure is equally great when land that has laid in sod for a number of years is used. Whether this bad state of affairs is wholly or partially caused by the prevalence of "black spot," I am not prepared to say, and would like, if time permits, to hear an expression of opinion on the subject. Leaving the cause of the trouble out of the question, I am satisfied the in-door treatment will insure better and more uniform results.

A very important question to consider is, "What varieties should be grown?" There are many grand roses which are not suitable for market. The requisite qualities in a rose for the purpose are, good habit and freedom of bloom, with good constitution and vigorous growth, so that it may not take too long to get a good-sized plant. The addition of fragrance is, of course, always desirable. I will give further on a partial list of the varieties which have proved to be the best, first detailing the methods of their culture as far as I have had experience and opportunity to observe. It is not necessary to go into the details of propagating, further than to say that the best way to get healthy plants is to take cuttings of well-ripened wood (that grown under glass will usually root easiest) in November, or early in December. At this time the plant may be cut back and the prunings saved for this purpose; if the largest flowers are desired, prune closely. Put the cuttings in a cold house with slight bottom heat, maintained by three or four feet of fresh tan under the sand bed. It will be found of advantage to have

one or two hot-water or steam pipes running through the tan at a depth of two feet to supply a little additional heat, which should be turned on as soon as the callous is well formed. The main point is to keep the top of the cutting as cool as possible without freezing. By the first of March the cuttings should be well rooted, and may be potted off and put into a cool house or frame. Shade for a few days, and give air and water as required, until the houses are emptied by spring sales, when the young plants will be in a condition to shift into four or five-inch pots, or to be planted out on benches, which should be done, if possible, not later than June 15. In preparing the soil, use five parts fibrous loam, one part well-rotted cow or horse manure, one part pure ground bone, and if the soil be heavy, one part sharp sand or rotten micaceous rock.

Where the soil is of a heavy, clayey nature (which is usually good for roses) the addition of finely ground oyster shells (carbonate of lime) in the proportion of one part to twenty-five of the whole mass will be found useful; not so much from the food it contains as in keeping the soil sweet. Any of the steam marble-dust mills will grind the shells at a cost not exceeding five dollars a ton. Burnt earth is also valuable, and may be used in the proportion of one quarter of the whole. If the plants are potted, they should be plunged half way to the rim in old refuse hops or other light material, taking care not to over-water. Unless great care is taken in watering, it is better to dispense with the plunging. Syringing and watering should be regularly attended to, and the plants kept staked up. By October 1, they should be from one to four feet high, according to variety. Those in pots may then be put outside to make room for a crop of chrysanthemums or other fall plants, and should, after being ripened by the frost and air, be plunged in frames or put into cold houses until it is time to force them into bloom. While in a dormant state, little water is required. Those grown on benches should be potted the middle of October and treated likewise.

In planting out, it may be well to put some of the sorts, such as *La France*, *Pierre Guillott* and *Malmaison*, in a house by themselves and keep them growing without intermission until after the holidays. When cold weather sets in, they will, of course, require fire heat. The temperature should be kept at from fifty-five to sixty degrees at night. The blooms obtained will pay for the expense of growing. The plants may be potted late in December or early in January, and after being kept a week or two in same temperature to somewhat establish them in pots, may be put away in a very cold house or plunged in frame (taking care that severe frost does not injure the roots) until spring. With this treatment, they will make fine plants for late spring sales. If fine specimens are desired, do not place the pots close together, but allow a space of at least one inch, so that the air may have access, causing the plants to swell their lower buds, and become furnished with foliage from the rim of the pot upwards. If crowded, they will break only towards the top, the lower branches remaining bare.

When brought into the house, they will require more room as growth advances. Those grown out-doors should be lifted and potted, in this latitude, from first to middle of November, or as soon as slight frost has checked the growth. In lifting, great care should be taken to keep the roots from getting dry, and the plants should, when potted, be shaded for a week or two to keep the wood fresh and plump. The first crop for selling is usually not wanted before Easter, and should be brought in from cold frame seven to nine weeks previous to that time. After bringing in, the temperature should, for the first three weeks, not exceed forty degrees at night, and may be gradually increased to fifty-five degrees. Other

lots may be brought in at intervals to keep up a succession. A critical period occurs when firing for the season is discontinued. Mildew is then to be guarded against. Many houses are ruined by it at this time. An effectual remedy is made by boiling five pounds tobacco stems and ten pounds flowers of sulphur in thirty gallons water, until it is reduced to ten gallons. Apply this mixture with syringe in the proportion of one pint to two gallons water. Use of it as a preventive should be commenced before firing is stopped. While firing, the occasional sprinkling of the heating pipes with sulphur, and caution against exposure to cold drafts, will be sufficient. Syringe with diluted fir-tree oil (or, better still, dipping the plants) is an effectual remedy for red spider; if, however, syringing with water be regularly attended to, there is not much danger from this pest. An occasional watering with weak guano or manure water after the plants have set buds will improve the blooms. Before taking the plants to market, it is well to tie the blooms in tissue paper to prevent injury from jolting on the journey. If the buds (particularly of the teas) are tied in stiff paper, leaving one end open when they first show color, they will attain greater size.

Among the very best hybrids to grow are *Gen. Jacqueminot*, *Magna Charta*, *Paul Neron*, *Merveille de Lyon*, *Baroness de Rothschild*, *John Hopper*, *Anna de Diesbach*, *Madame Masson*, *Queen of Queens*, *Paonia*, and *Duchesse de Morny*; the latter two varieties do not produce particularly fine flowers, but they are of such good habit and freedom of bloom as to merit growing in large quantities. Of the hybrid teas none are superior to *La France*, *Pierre Guillott*, *Lady Mary Fitzwilliam*, *Antoine Verdier*, and *Countess of Pembroke*. In the teas, none are better than *Perle des Jardins*, *Madame Welch*, *Marie Van Houtte*, *Etoile de Lyon*, *Madame de Vatry*, *Madame Cusin*, *Coquette de Lyon*, and *Murie Guillott*. The latter variety is one of the most profitable; its flowers are pure white and of good substance; it pays to grow it for flowers in summer alone, and it is the best white tea for pots in spring; it requires a stony, clayey soil. *Coquette de Lyon* also deserves special mention. It has been called the "Yellow Hermosa," and the name is appropriate, for it flowers as constantly and abundantly as that well-known sort. In the Bourbon and Chinese classes, we may grow *Hermosa*, *Agrippina*, *Archduke Charles*, *Sour. de la Malmaison*, *Bourbon Queen* and *Queen of Bidders*; and in the climbers, *Tennessee Belle*, *Gem of the Prairies*, *Baltimore Belle*, *Reine Marie Henriette*, *Glorie de Dijon*, and *Marechal Neil*. With the exception of the three last named, they should be planted out-doors in summer. Very strong plants make a fine appearance when trained on trellises in oval form.

The Polyantha roses are dainty little beauties and well worth growing. The best are *Mignonette*, *Madame Cecil Brunner*, *Little Pet*, and *Perle d'Or*. A few of the moss roses are desirable. The best for pot-culture are *Countess de Murinais*, *Glory of Mosses*, *Crestata*, *Princess Adelaide*, and *Henry Martin*. The latter, although not producing first-class flowers, blooms so easily and freely as to well merit a place on the list. If grown under glass in pots, they will bloom well the first spring, which is not the case (excepting *Henry Martin*) if they have been planted out-doors. Under the latter treatment, they are likely to produce only blind shoots. *Coquette des Alps* (hybrid noisette) is not only first-class in pots, but will give satisfaction as a vigorous grower and bloomer when planted out. It is surprising that it is not more largely grown. *Coquette des Blanchés* is also distinct and good. *American Beauty* promises to be very valuable, but has not yet been sufficiently tested as a market pot-rose. Of one thing I am thor-

oughly convinced, and that is that the operator confining himself to eight or ten varieties in the hybrids and to twelve or fifteen in the teas will realize more money than one endeavoring to grow a great number of kinds.

In growing cut flowers for winter bloom, the growers have been compelled to drop all but less than a dozen in each class, and those of us who grow for market in pots will be wise if we take the hint and reduce our lists accordingly; remember, I speak of roses for market purposes. I can readily understand how those who publish catalogues and minister to the wants of educated amateurs, can afford to grow more kinds, for their patrons are more or less familiar with future results. Such stock may be sold as very small plants or even in an entirely dormant state and still give satisfaction, but the successful market plant must be a "thing of beauty" on the day it is taken to be sold.

The CHAIRMAN (J. M. Jordan): The paper that you have just heard is now your property, and it is quite fitting that some discussion be had upon the subject. There are many here who know something of it, and I hope that what is said will be to the point.

Mr. JAMES HENDRICK, of Albany, N. Y.: I ought to feel grateful that, when called into existence, I was destined to stand as a living monument of thanks, and when I look at my present surroundings and into the cheery faces about me, I thank God that I am just that monument! I think it was Emerson who said if you want to succeed, you must hook on your wagon to a star and work up to your ideal. Now, ladies and gentlemen, you have before you a paper from a successful man. I want to take Emerson's advice and work up to the ideal. The paper which has been presented in your hearing and mine is one upon which much thought has been expended.

Who has not read of and admired the crags of the North of Scotland? Those bold outlines have been transferred to a more genial climate: the "Crag" of the North has been transformed into the "Craig" of the South, and, in the genial atmosphere of Philadelphia, this descendant of a Scotchman, unlike the "canny" Scot who locked up everything within himself, opens his heart to you and tells you all that there is in on this subject. I think that because he has done so—and he has withheld nothing; he is honest; every sentence that he has enunciated demonstrates his sincerity, his honesty, and his truthfulness. The first thing you ought to do is to accept his paper and thank him for it.

The motion of Mr. HENDRICK was adopted by a unanimous vote.

Mr. CRAIG: I think that this "black spot," which is interfering so seriously with the growth of roses all over the Northern States, is entitled, perhaps, to a little of our time; and, if there is a disposition to discuss the question, we would be pleased to hear from any of the gentlemen who have made observations concerning it.

MR. PETER HENDERSON, of Jersey City, N. J.: In view of the thoroughness with which the subject has been treated by the essayist, Mr. Craig, so little has been left to be said and the ground has been so fully covered that I really do not know how anything can be added that would be of much benefit to American florists.

I will just remark that, some twenty years ago, the plants from which we propagated were entirely different from those that are now generally used in propagation. Then, as Mr. Craig has stated, we used plants that were taken from the open ground, outside. Those plants were lifted, potted, put in cold frames and kept there usually until March. Then, after starting, we took the cuttings from these in the usual way, propagated them in the regular course and planted them out again. Now, the great majority of roses are propagated from plants that have had no rest. I remember when I first deviated from our old plan of propagating plants from those that had been rested in the winter. On one occasion I planted out about four thousand plants of *Safrano*. About half of them had been propagated from plants that had been forced in winter, and the other half were those of which the cuttings had been taken from plants that had been kept in frames in the usual manner. In the fall the plants that had been propagated from the forced plants were but very little larger than they were when set out in the spring, while the cuttings that had been taken from plants kept in cold frames, (and which were set out at the same time that the others were,) had attained a height of from eighteen to twenty inches; thus demonstrating that the former had shown the effects of exhaustion in consequence of their having been forced. I think that, in all probability, this trouble of black spot is attributable to this cause. Whenever you outrage nature, it is my opinion, nature will hit back. We have been forcing carnations for probably twenty-five years without giving them any rest whatever. We put in, to force, in the fall, at a temperature of probably sixty degrees, and continue this through the winter; taking the cuttings from them while thus forced; planting them from the green-houses on the open ground, to run the round of our tropical summers; then to be again lifted and to go through the same course of treatment; thus denying them the rest that their nature demands. As a consequence, we have disease. Of late years, we have the same results in violets—the black spot and disease. Why is this? It is because we have been going through almost the same course, propagating them under artificial heat, until their system has become exhausted, and, being given no rest, they rebel against this unnatural treatment.

All who have had experience in forcing vegetables will agree with

me in this. I can take the strongest plant—rhubarb or asparagus—force it so that it will mature in mid-winter, and in that case the plant will be rendered almost worthless. So it is with our hyacinths, tulips, lilies of the valley and other bulbs, together with many other hardy plants. When grown and forced under artificial treatment, they are injured less or more according to their nature. Put them through an unnatural course for one season by giving them no rest, and they resent the ill-treatment. I believe that this has probably more than anything else to do with black spot and all kindred diseases that seem to be caused by lessened vitality.

Mr. JAMES HENDRICK, of Albany, N. Y.: I was going to observe, Mr. Chairman, that, in that good Old Book, we read that in the long past there was a race they called Anakims—"there were giants in those days"—and in more recent times we read of a race of pigmies called the Aztecs. The cause of the human stature descending from the giant to the pigmy is doubtless known to you as well as it is to me. Pray what occasioned the difference in size between those two classes of men? The one is a little fellow not three feet high; the other is seven feet six. The remarks made by my good friend Henderson, I think, cover a great deal. He says you cannot get a strong plant from a weak constitution. If you force the rose, it is only a question of time when it will force you. My impression is just this: that you cannot raise strong plants from unhealthy parents; nor can you obtain healthy stock from parents of antagonistic races. From improper associations, our race is degenerating, and we have been troubled with nervous and liver diseases, in the last twenty-five years, to a greater extent than ever before. It would be well, therefore, to consider that the true way of avoiding diseases, in human races as well as diseases in vegetation, is by selecting pure and healthy stock.

Mr. HENRY A. SIEBRECHT, of New Rochelle, N. Y.: The worthy gentleman from Albany (Mr. Hendrick) has expressed my views in part. I wish to say upon that subject that, in subjecting stock plants to too severe a pressure, in forcing them and propagating our stock from them, I think we try to take too much and give back too little; that the practice of rushing things, of trying to get along very rapidly, will certainly, sooner or later, leave us in the lurch. We cannot take everything while giving nothing in return. Therefore, I would advise and suggest that those of us who grow roses as specialties go back to the old method with, at least, a portion of our stock. By that means, we will secure a good healthy growth in some of our roses and will get new blood, as it were, for propagating purposes.

Twelve months ago I made the suggestion which I am now stating

with a view to renovating violets of disease. I promised myself to take a number of *Marie Louise* violets, plant them out of doors in a somewhat sheltered spot, protect them from severe frost, and use them as stock plants for propagation—in this way producing once more the violet as we have had it in all its luxuriance. If we try a little experimenting of this kind, we will be richly repaid for it.

The CHAIRMAN (Mr. Craig): A delegate desires to hear from Mr. Charles Anderson on this subject. The gentleman named is certainly well qualified to speak upon it, and no better selection for the purpose could be made.

Mr. CHARLES ANDERSON, of Flushing, N. Y., (who was cordially received,) said: I do not know that I can add anything to what has already been said, except to take a little exception to a few remarks that some of our delegates have made in connection with this disease. I regard this disease among roses as being purely of fungoid origin; and this fungus I regard as being generated by atmospheric conditions. Where the roses are all out of doors, a weak rose will of course be affected sooner than a strong rose, yet if there are no weak ones to be affected, the disease will attack the strong ones. A neighbor of mine who has never propagated his roses except upon the old method never had such a thing as black rust or black mildew, but, in the past two or three years, he has had black spot. His roses have never been forced. Not only is that the fact, but it is also true that he grows none but the very strongest of the older varieties. I cite the fact as one which seems to sustain the theory that the fungus is specially generated by certain atmospheric conditions. With respect to roses under glass, we know that we can control black spot to a certain extent by a dry atmosphere, and by a little increased temperature at times, or by a change of it. We also know that sulphur is a very poor protection from destruction by the black mildew. It has not the same virtue that it has in the ordinary white mildew to which we are all accustomed.

I consider the subject one deserving of our patient consideration, as the disease, if permitted to go unchecked, threatens to undermine the constitutions, not only of the out-door roses, but of the in-door roses as well, so that eventually we may be unable to grow a rose of the same strength and vigor possessed by those grown in years gone by. It is not unusual in some localities to see thousands of roses which have been planted out of doors decimated of their foliage from top to bottom. I am not prepared to speak of it as a scientific man or a microscopist, but I may say that, in my opinion, fungus of the same character is attacking many other of our products as well as roses. I have

noticed on maple trees a spot very similar in appearance to that which comes on roses. It has also appeared on different kinds of grass and on clover in the fields. You can all observe it. Wherever it is very prevalent, the vegetation has a very sickly look. While we may not be able to apply a remedy out of doors, I think it is quite possible to control atmospheric conditions within our green-houses, and that we can, to a large extent, eliminate this rust from our roses in-doors. This, however, can only be done by careful watching. It would appear that the best measure to counteract its ravages is to carefully pick off all the leaves that are affected the moment that its presence in any green-house is detected. When it first makes its appearance, it is a minute spot, one not bigger than the point of a pin, and it gradually spreads. If at that time the green-house is subjected to a drier atmosphere for a few days and a little manure is applied, the plants will probably recover and break into a strong, healthy growth.

Concerning what has been said upon another phase of the subject, I wish to repudiate the idea of any of our roses being weakened by forcing. I consider that the condition of almost all our tea roses when under glass is very nearly their natural condition. We do not force them under an excessive heat. They are kept at very nearly their natural temperature, and they get all the sunlight that they could possibly get in their native climes.

Mr. J. D. CARMODY, of Evansville, Ind.: I shall not attempt to give any instruction on this point, but will merely state a circumstance that occurred in my experience in relation to the black spot in roses. Last winter I made some cuttings of the *Perle* rose from good healthy stock and removed them to my propagating house, which is several degrees cooler than my blooming house. In a very short time, every cutting had black spot, and I did not save, I suppose, one tenth of the whole. The plants from which the cuttings were taken remained healthy all the time. You can draw whatever conclusion you like from that.

Mr. PETER HENDERSON: Allow me to make one additional remark. It is in regard to a case—a very remarkable one, I think,—which would go to prove that black rust or black spot is a consequence of lessened vitality. I agree entirely with Mr. Anderson in what he has said about the influence of atmospheric conditions, but I also believe that all mildew developments, as a rule, are a consequence of some shock to the system of the plant. Nearly twenty-five years ago I had an instance illustrating this, and it was one which I will never forget. We had an old lean-to green-house, where the sashes were let down

in the old-fashioned way so as to secure ventilation. One evening, the sashes were neglected and the windows allowed to remain open. Next morning the plants, which were roses just coming into bloom, were frozen right under the place where the sashes were let down. They were frozen sufficiently hard to blacken the buds, although not enough, seemingly, to injure the foliage. After the lapse of sixty hours from the time when they had been thus frozen, the space under the sashes, measuring about three by four, was covered with mildew and the lines defining this space were clearly visible, while in no other part of the house was there a vestige of mildew. Why was this? It was because the vitality of the plants had been lessened by the shock they had received, and the presumption is a fair one that the germs of the mildew, floating in the atmosphere, had found suitable soil for their germination.

I have another case in point, and my statement in regard to that can be verified by gentlemen here present who recently visited my place. We had some six or seven hundred of *American Beauty* roses. One half of these are now in perfect health, and I do not think you can find scarcely a black spot among the whole of them. They are growing in ten-inch pots, and are about two feet high. This lot was from plants that had been grafted on *Manetti* stock in the first week of March, the stock having been taken from cold frames at that date. After grafting, they were shifted and forwarded in the usual way. They were placed in the open air about the first day of June last, with another lot of *American Beauty* with which they were almost identical in size and apparent vigor, but which, however, had been grown in the green-houses during the winter, without rest. At this time, two months after being thus exposed in the open air, the grafted lot (which had the winter's rest) are in perfect health, while the others are becoming affected to a considerable extent with black spot. This experiment is one of the most satisfactory I have ever tried, and, in my judgment, it shows as clearly as anything can show that it is the continued unrest to which we subject the plants which causes lessened vitality and consequent disease.

The CHAIRMAN (Mr. Craig): Will Mr. Henderson permit a question before leaving the floor? His theory, as I understand it, is that continued forcing has so undermined their constitutions that the roses have for that reason become more liable to this disease which we call black spot?

Mr. HENDERSON: Yes, they have thus become liable to that and other diseases. That is only one of the diseases which may afflict them.

The CHAIRMAN: I believe that the assumption upon which that theory is predicated is the truth, but I do not think that the gentleman's statement covers the whole of the subject. It has occurred in our experience, in importing from Europe roses that had been grown on the "rest" principle, that had been rested all winter, that, after bringing them over, and planting them out, they soon became filled with black spot. I do not attempt to controvert the theory that continued forcing will so enfeeble the plant as to make it subject not only to black spot but to all other diseases, but I think that black spot will attack the healthiest plants as well as the unhealthy. What does the gentleman (Mr. Henderson) think of cases of this kind?

Mr. HENDERSON: I have only to answer by citing the fact which was demonstrated in the case to which I have just called attention, viz: that where the plants were given rest, where we have a stronger growth, there has been no black spot; while, in the other case, where we have a weakened growth consequent upon the want of rest, we do have the disease. I can only account for the case which Mr. Craig has stated by supposing that in some way the roots have been hurt by over or under-watering,—either might do it,—as we well know that these extremes bring black spot, rust, burning or whatever the different phases of such disease may be called upon many other plants besides the rose.

Mr. E. G. HILL, of Indiana: I think we are arguing from wrong premises. Take *Victor Verdier* and roses of that type, and you find that they are subject to black spot. The first instance in which black spot came under my notice was one in which it was developed in *Victor Verdier* roses imported from France. If you take any one of the type of the *Victor Verdier*, you find that it is the first to be affected by black spot. There is no doubt that the *American Beauty* has *Victor Verdier* blood in its veins. It has been placed out of doors in a healthy condition, and before three weeks have elapsed, the black spot has been seen upon it. Only two years ago we had roses of the *Victor Verdier* type from over the water with tea blood in them, and found them the first to develop this particular kind of fungoid disease. The *Victor Verdier* is a result of the cross between a hybrid perpetual and the tea rose *Safrano*, and was raised by Lacharme of Lyons, France. Here you have a union of the tender tea variety and the hardy hybrid rose. I repeat that roses of that kind, with tea blood in them, are more subject to black spot than others. I believe that in the rose, as in the human family, peculiarities of disease are transmitted in the constitution, and the question that I have evolved in

my mind is, whether the trouble here has not come from that union or from the results of crossing those varieties.

MR. ANTOINE WINTZER, of West Grove, Pa.: Referring to my personal experience, I have to say that our first bad case of black spot was in a lot of imported roses from one of the old English growers. They were as fine and healthy-looking plants as any in our establishment, and during the months of July and August were growing vigorously. Suddenly they became affected with black spot. I knew how to handle mildew, red spider, and all the old pests, but this was something new. I studied the subject, and reasoned that, unless checked, the disease would not leave us a healthy rose in the country in the course of ten years. My observations convince me that the fungoid spot on the leaf results from a disease of the circulation, and that the disease may be produced by climatic influences, abuse in the treatment of the plants, or other unfavorable conditions. I have noticed that, when in the most vigorous condition, plants would be suddenly attacked by this disease. I do not coincide in the view expressed by the gentleman from Indiana (Mr. Hill) that the disease is confined exclusively to the *Victor Verdier* class, although I admit the *Victor Verdier* class and its family, with the exception of Bennett's hybrid teas, are the most liable to it. About eighteen years ago, I grew the *Victor Verdier* in open ground. It did not have the disease at that time. In fact, with us, the disease is of recent origin.

The only remedy I have found is to procure good healthy stock plants for propagating purposes,—plants that are grown in open ground under favorable climatic conditions. But I do not say that because a plant has not black spot at present it will therefore never get it. A man may not have consumption in his system, but he may contract it from self-abuse or from any one of many other causes that produce the disease; and black spot is almost as fatal among plants as is consumption in the human race. Through the Southern States roses may be seen that form their leaves in March and will retain them until late in autumn, which is something very unusual in our latitude.

The quality of the rose is in the stamina. If you produce your cuttings from good, well-conditioned plants, the progeny will have a good send-off and will be able to endure our changeable climate. Propagating from plants that have been grown under glass for a number of years has a tendency to impair the vitality of the future stock. In this climate roses must be grown under glass to produce good flowers; but the young stock should not be produced, year after year, from

such plants. Rose cuttings from plants grown in the open ground have more vitality.

Mr. WINTZER went to say that sulphur fumigation and other remedies that would cure other diseases had no effect whatever on black spot; that it was as great a mistake to assume that the disease was caused by starvation as it would be to suppose that a man was in good health because he weighed two hundred pounds, when his weight was due to the fact that he was "all the time full of beer." He reiterated that it was an error to attempt to grow roses by the over-heating process. He contended that the reason why there was so much disease among the *American Beauty* roses last year was that everybody was harassing them, and that stock could not be procured from plants grown in open ground.

Mr. HENRY A. SIEBRECHT here interposed to say that he thought the view expressed by the gentleman from Indiana (Mr. Hill) concerning the origin of the disease was more nearly correct than any other which had found expression. That view was that in producing new roses such as *American Beauty*, *La France*, and other hybrid tea roses, two roses of differently constituted natures were used, viz: the hardy hybrid perpetual rose and the tea rose—the one being a soft rose that would grow throughout all the year, if required, and the other a rose that needed rest. Consequently, the product of this union would be a rose of two distinct and opposite natures. He (Siebrecht) coincided in the view that the disease was traceable to this cross-hybridization. He further stated that, in a conversation with Mr. Henderson, several months ago, the subject was talked over, and both Mr. H. and he came to the conclusion that the hybrid blood in the *American Beauty* and other roses wanted rest at a certain time, while the tea blood in that rose rebelled and wanted to push and grow.

About a half dozen years ago, Mr. Henry Bennett, of Stapleton, now of Sheppardton, introduced his pedigree "hybrid tea" roses into commerce. We expected wonderful results from them. One of the progeny was *Duke of Connaught*. Where is the *Duke of Connaught* to-day? What has he accomplished with it as an out-door rose? Of the ten roses introduced by him in that year very few have been satisfactory as out door roses. All of that class of roses, grown under out-door culture, have been more subject to black spot than *American Beauty* or any other rose of which I know anything. I can show you to-day an *American Beauty* rose propagated from original stock that had black spot and which was absolutely cured of the disease. The disease is not one that is confined to any particular rose. Some of our

best roses are liable to get it, among others the Manetti, imported from Europe. Last summer, when we had about five thousand Manetti, we were visited by a north-east storm, with a drop of twenty-five degrees in temperature, and in less than twenty-four hours black spot appeared in large quantities among the lot.

Mr. CHARLES ANDERSON, of N. Y., here interposed and remarked that he had Manetti stock, which had been imported and had been planted out, and that that stock was afflicted with black spot. He suggested an inquiry as to the cause in that case.

A delegate here inquired whether any grower had subjected a case of black spot to the microscope with a view to ascertaining the nature of the disease. (No response was made.)

Mr. WINTZER (continuing) explained that the cause inquired about by Mr. Anderson was probably due to climatic influences. He went on to say that the Manetti stock, which was one of the hardiest and most vigorous, was as liable to be affected by the disease as any other variety. In point of fact, it had been affected for the last two or three years. So far as he knew, none of the roses affected had been produced in any other way than by the old-fashioned system of hard-wood cuttings in open ground.

A delegate here moved that, in the discussion of subjects before the convention, a five-minute rule be enforced.

The motion was adopted without objection.

Mr. WINTZER, being given permission, continued: A sudden check to a plant of any of the varieties, no matter how healthy, would, in his judgment, produce black spot. He held that the rule in this respect was the same in plants as in human beings, and that a healthy man who, under certain conditions was exposed to a draught of air, would contract pneumonia as quickly as one in delicate health. (Applause.)

Mr. SCHULTHEIS, of Long Island, N. Y., being awarded the floor, stated that in his view, the forcing of roses impaired their vitality. He added: "Now if you use rain water, you will never be troubled with black spot. That is all that I have to say."

Mr. JOHN THORPE (humorously): I am afraid that Mr. Schultheis is "off" with regard to soft water. I use nothing but soft water and I have the finest crop of black spot on my hands that you would care to see!

The CHAIRMAN: I am compelled to announce that the last five minutes for discussion have expired, and also the time which we are at liberty to devote to this subject. I am pleased, however, to be able

to announce that, before we adjourn, we are to be favored with a few words from a gentleman known to many of you, one eminent in our profession, a thoughtful man, one who is known, not only throughout this country, but is recognized on the other side of the Atlantic as a high authority on all subjects connected with our business. I have the honor and the very great pleasure of presenting to you Mr. Thomas Meehan, of Philadelphia.

Mr. THOMAS MEEHAN, (editor of the *Gardener's Monthly*,) of Philadelphia, rising in his place on the platform and being cordially greeted with applause, said :

Mr. Chairman : I feel very grateful to you for the kind words you have spoken of me, and to my friends in the audience who have responded so cordially to your remarks concerning me. I wish I could feel that it was in my power to make a return which would be somewhat commensurate with the kindness and good feeling with which you have welcomed me. If I were in some other place than Philadelphia, I might perhaps feel disposed to try at once to fill the measure of my gratefulness; but, remembering that I am in the Quaker City and that Quaker ideas have pervaded the whole community, I feel that it is my duty to speak only "when the spirit moves me." Fortunately, the spirit has moved many of our friends, who have come to pay us a visit, and the result has been seen in the excellent addresses which have been heard this afternoon. But, as I am an outsider in a measure, only a listener, and with nothing of my own to communicate, I may, perhaps, be permitted to comment on what others have said. I have been led to think, by what has been said, how much I would like to be present at some pomological convention this evening, where the experience that I have gathered to-day, concerning the wearing out of varieties, might come into good use. That theory, or speculation rather, originated with Thomas Andrew Knight, of England, who, observing that certain pear trees fail, conceived the idea that plants had only a specified time to live,—a pear tree probably five hundred years,—and that, at the end of that time, even the cuttings taken from that tree necessarily became diseased and died because the limit of that period had been reached that the cuttings would live only as long as the parent stem lived; consequently, when the natural length of life for an individual tree had been reached, it would die and the younger plants from it would, necessarily, die also. But the facts that we have gathered here this afternoon would, I think, have a very strong bearing as against that theory, because one individual rose will not live for fifty or sixty years, and yet we have in existence to-day varieties which were well known fifty years ago, and

were not new then, and which, notwithstanding the many difficulties surrounding their culture, because of disease and bad conditions, are still the most popular of our modern varieties. This is a strong point against the original doctrine of the wearing out of varieties.

Although individual varieties will not, necessarily, wear out, I am sorry to note, in gazing at the sea of faces before me, that individuals of the human family do wear out, for of those whom I knew in the business twenty-five years ago, there are few now living. But while the individual members of the Society wear out, neither the art which they are fostering, nor the love for flowers which they have inherited from, and will transmit to others, will ever wear out.

I was a rosarian in comparatively youthful years. At my tenth year I commenced to study roses, and when between ten and fifteen years of age, I knew every variety of rose that was in existence at that time. It is because of that fact that I make the statement, based upon the speeches which I have heard this afternoon, that the roses which were fashionable at that time are still popular to-day. In listening to the lists read by Messrs. Henderson and Wintzer, I was interested in noting how many roses had lost their original names in history, and were now being introduced under new names. For instance, what we knew as *Goubault* is now *Bon Silene*, and roses which, like *Niphotos*, were of no account in former days are popular now, because, although varieties do not run out, old thoughts do run out. We are compelled to find new thoughts and new wants, and the old flowers very often provide for those new thoughts and new wants to a larger extent than do some of the newer varieties. Therefore, it is always necessary to look for new varieties by either cross-fertilization or other scientific methods, for, after having gotten once the new variety or the new idea, we can frequently find among the older varieties the necessary material for filling new thoughts and wants, and such material can generally be used to much better advantage than even the new kind. Only a few days ago I was told of a rose which is now being introduced in Europe. It is a German variety—recently the Germans have been competing with the French in introducing new varieties, though this distinction is one that has been supposed to be a special perquisite of the French people. I supposed we had something entirely new, and was informed that its peculiar name, in German, was *Namelose Schoene*, signifying "The Nameless Beauty." Struck by its name, I was induced to inquire into its history, when I found that that also was an old rose! It was an old rose, the name of which had been lost. It had been certainly under culture for over twenty years, and without having any recognized merits; but the new

thoughts and the new wants to which I before had reference led to the discovery in that old rose of just the merits which the new thoughts and the new ideas required, and thus it became of value. It was very nearly allied to *Niphotos*, but it was found to be a regular bloomer, continuing in bloom for six weeks; furnishing nearly as many flowers at the end of that period as it did at the first part of its blooming; and, moreover, was so floriferous that even small plants in the cutting pots would bear flowers. This quality, with others, therefore, in this age when we are cultivating roses and flowers especially for profit, gave it a value which it would not have possessed in former times when flower buds were not so much in demand as at present.

I have only to add that, whether new varieties wear out or not, old love of flowers will never die; and although, in looking over the faces here, I am impressed with the fact that the florists whom I knew forty-eight years ago are passing away and new ones are coming up, I can see that the old love is not dead. I hope that the influence of your meeting will stimulate that love which is destined to continue long after the oldest of us have passed away. (Long-continued enthusiasm.)

The CHAIRMAN here announced the hour of adjournment, and made several additional announcements for general information. Briefly stated, these were as follows: An invitation to delegates who had not recorded their names to visit the registry book in one of the outer rooms; an invitation from the officials of the United States mint, with a statement of the hours for visiting that institution; and notifications from Mr. Sturtevant, of New Jersey, that the flower of *Victoria Regia*, in the exhibition hall, could be inspected during the hours of the sessions; and from the local committee of the Florists' Club, apprising the excursionists to Atlantic City of the time at which the last boat would leave on the following morning.

Mr. W. K. HARRIS, by way of testing the sentiment of the convention on the point, moved that the excursion fixed for to-morrow be made, "rain or shine."

The motion was carried without objection.

Adjourned.

FIRST DAY—EVENING.

The CHAIRMAN (Vice-President Craig in the chair) announced as the regular order of business, per programme, a paper on "Fungoid Diseases of the Rose," by Mr. H. J. Sackersdorff, of Bayside, N. J.

He added that the President (Mr. THORPE) desired to make a statement in regard to the paper.

Mr. JOHN THORPE, (the President :) As the members of the convention have doubtless observed by the programme, Mr. Sackersdorff, the essayist on this topic, has been removed by death. Prior to his sickness, he prepared some notes on this important paper, and I have those notes now in my possession, but they are in such a condition of confusion that we have not yet been able to disentangle them. I suggest that the society place these notes in the hands of a committee, with instruction to them to get at the pith of the matter and prepare the same for insertion in the printed report of our proceedings. If this meets with favor, a motion to carry the suggestion into effect would now be in order.

On motion, it was here ordered by the society that the paper prepared by the late H. J. Sackersdorff be completed, and that it be published in the report of the proceedings of this annual meeting.

(NOTE.—Up to the time of going to press with these proceedings, the above-named committee had not reported, wherefore the essay cannot be inserted.)

The CHAIRMAN: The next topic treated of on the programme is "Model Green-houses and How to Build Them," which will be presented by a gentleman well qualified to instruct us, Mr. John N. May, of Summit, N. J.

MODEL GREEN-HOUSES, AND HOW TO BUILD THEM.

To build a greenhouse in the best practical manner, and, at the same time, in a reasonably cheap way, is, perhaps, the most important part of the construction to the working florist; and to show how to do so is my present purpose.

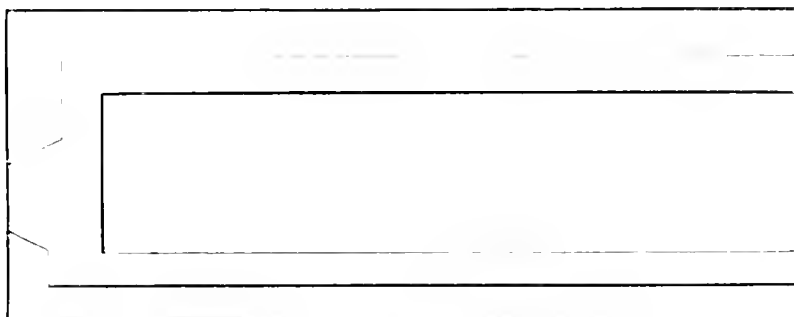
LOCATION.

This is the first step to consider. If for beginners, I would strongly advise them to work out a plan suitable to all their future requirements, and start the first house so as to form a part of such plan complete; but in locating, it is advisable to get a position as nearly facing south as possible. It should also be so situated that perfect drainage can be secured at all times, for no greenhouse will ever be satisfactory where it is subject to floods, or where the bottom is damp or unhealthy. Another consideration is level ground; the nearer level it is the better. Although a slight rise in the run of a greenhouse, of not more than two feet to one hundred, is not out of the way, still, for all practical purposes, I prefer it level all through.

SIZE.

Having selected the position and location for the house, the next thing to consider is the size; and here I would remark that, having tried nearly every conceivable shape and size of greenhouse for growing plants of various classes in, I have come to the conclusion that houses of moderate size are much the best for

nearly every purpose. A very large house has the objection of keeping the plants too far away from the glass, and, moreover, does not give the amount of space in proportion to the glass area; while, on the other hand, my experience with small houses of ten feet wide, and from that up to sixteen feet, is that they are subject to considerable fluctuations in temperature during very cold or very hot weather. To avoid both these extremes, I struck a line between the two, and built nearly all my houses eighteen feet six inches in the clear (surface measure), and after seven years' experience with this particular size, I find they are the best suited for my purpose by a long way, for while I have one sixteen feet wide and one twenty-four feet wide, I find they neither are as satisfactory or as handy to work as those of eighteen feet six inches. Where it is convenient to build houses that width, I certainly advise them. Presuming that is the size selected, decide on the length; then start at the end farthest from the boiler or shed, and stretch a line where the front row of posts is to be set; then square from the corner post in front to the corner post for the back eighteen feet six inches. Next take small pegs: place the first down for the corner, then put one in at three feet eleven inches from the outside of corner, and the next at three feet eleven inches from center to center, and so continue placing them close beside the line till the right length required is reached. Next, mark out where the door is to be placed on the end; place a peg down for each door-post, allowing three inches for the jambs between the post and door: then place pegs at equal distances between that and the corners.



GROUND PLAN OF GREEN-HOUSE.

Next, stretch another line for the back row of posts parallel with the first, and eighteen feet six inches from it; then drive in pegs at same distance from each other as for the front row. Now, take a spade and mark out for each hole around the peg, about four inches on the outside of each and eight or nine inches inside of it; this gives room for the post to stand and touch the line, and gives room to ram it firmly after placing it in position.

Then dig the holes to the right depth - usually about three feet is enough, unless the ground is not solid at that depth. As soon as it can be ascertained what depth is required, have the post long enough so as to allow whatever depth is to go below ground level, and to stand three feet ten inches above the level for the front and end posts, and eight feet two inches above ground for the back post. These, of course, must be faced, before setting, on the side next to the boarding.

At the shed, or boiler end, the wall of cellar should be built so as to project six inches to house proper. In this wall place a sill, and from this sill build up this end of the house, and place two studs to carry the ends of gutters, which will answer in place of the last two posts.

When the posts are all set in position, prepare your gutter strips four by eight inches (Fig. 1), by digging them out the required depth, starting at one quarter inch, and deepening it one eighth inch to every three feet; plow the under side for drip and edge of weather-boarding, as shown in the same figure; select sticks twenty feet long for this purpose. When worked all ready, level the tops of posts all through, the front one at three feet eight inches from ground level, the back ones eight feet from grade. Saw them all off square, then fit the gutters on, saw the joints with square butts and tight, and then spike them fast to post, first applying tar or white lead to the under side of plate and top of post. When this is completed, and the run of the gutter is even all through to center where leader is put in, take some gas tar, boil it for some time, and give the hollowed-out part a good coat from end to end; this prevents cracking and keeps the water from soaking into the wood.

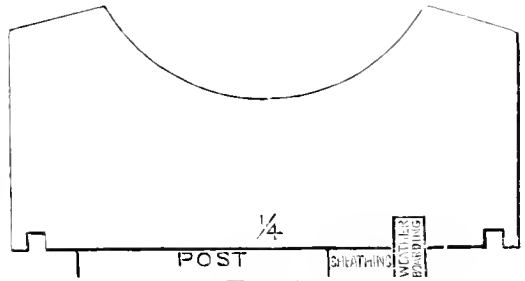


FIG. 1.

Next, get the ridge plate (see Fig. 2) and purlin ready (Fig. 3). These are best jointed by a half splice, and if fitted nicely, the joints leaded and well nailed together, it makes a very neat finish. As soon as they are ready, a scaffold must be built so as to allow the workmen to get up near their work. Then cut three or four

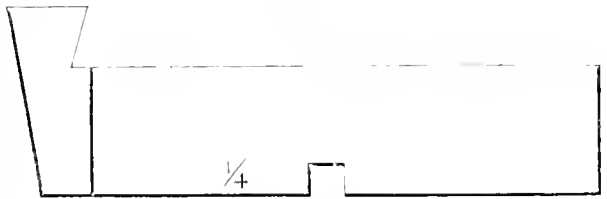


FIG. 2.

pairs of rafters as near as possible to sixteen feet on the glass line for the front ones, and six feet on the glass line for the back ones: place these at five or six feet apart, and put the ridge plate between them; get the pair of end rafters (Fig. 9) up, and start

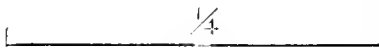


FIG. 3.

plumb with these, bracing them securely so that they remain in place. As soon as this is done, put up the balance of ridge plate all through, and tack it so as to



FIG. 12.

prevent its getting out of place. Then commence next to end rafters, first put up: make three pattern-sticks to measure twelve inches and one twelfth of an inch long (this allows twelve-inch glass to bed well): then commence and cut the rafters (Fig. 12) with a crow foot, so as to bring the glass line when fitted even with the hollowed edge of gutter. Nail them fast with finishing nails

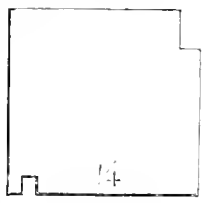


FIG. 9.

as fast as fitted, placing a pattern stick between at each nailing place. The purlin should be put in place before nailing any of the rafters, and held there by temporary supports from the ground; the same, also, for the ridge plate.

In nailing to the ridge plate, be careful to keep it as near straight as possible, particularly on the south side, as the ventilating sash fits so much better if the ridge is quite straight. Each alternate rafter on the top need only be thirteen feet long, and at top can be left loose till the whole of the rafters are on.

As soon as completed, stretch a line the full length of roof and three feet from the ridge plate; square the top ends of each of the thirteen-foot rafters, and cut a header between each pair of sixteen-foot rafters; and across top of the short one

nail header to each of them, in a plumb line—of course keeping the groove for glass in it flush with glass line on bars (Fig. 4). As soon as this is completed it is ready for the sash, which, if properly made, are ready to fit on, except that the under side of top rail will want beveling off to fit evenly to the ridge plate. When fitted all through, they should show one inch of the header below the sash; on this they are hung with galvanized iron butts, having a brass pin—the best size is one and three-fourths by two and one-half. These fit nicely, and are plenty heavy enough; they require an inch and a quarter screw, No. 7. Before putting the sash on, I advise that iron columns, made of gas pipe, be put under ridge and purlin at about ten feet apart, and braced up tight; this secures everything in its place.

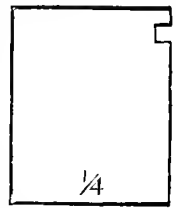


FIG. 4.

Next, take the bevel strips (Fig. 5), fit in carefully between the rafter on the beveled edge of gutter, lead them well, and nail fast with finishing nails. As soon as this is completed, the roof is ready for painting and glazing. I prefer twelve by twenty-four glass for the back, which just takes three lights; for the front any length can be used, but for the ventilators one thirty-inch light, or two of fifteen inches, can be used.



FIG. 5.

Next, finish up the ends. If glass, (which makes much the neatest finish,) is to be used, work out a plate (Fig. 6), which fits on post over boarding, etc., the same as the gutter does. When this is completed,

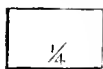


FIG. 11.

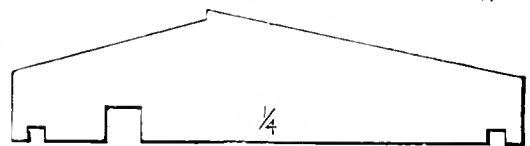


FIG. 6.

take strips sixteen feet long (Fig. 11), place on outer edge of gutter, and nail fast. This makes the gutter one inch deeper, which is very requisite, particularly during heavy thunder showers, etc., when, if this is not put on, a good deal of the water would rush over the outer edge of the gutter.

In boarding, I prefer hemlock boards, eight or ten inches wide. Start at the top: use a lever, and get each board as tight as possible. When this sheathing is all on, take the best rosin-sized paper, cover the whole outside, then put on the outside weather boards, slate, or whatever is preferred. Novelty siding is, perhaps, the neatest looking; if this is used, commence at the top, and let the top edge of board fit up tight into groove of gutter, and nail the top edge of board—but before nailing lower side, get the next line of boards into position, etc.

If slate is used, the slater must begin at bottom, and measure off the distance for each course to come out even.

The benches, etc., inside, of course can be fitted up any way to suit the class of plants to be grown; but for roses, I think the best is a front bench two feet nine inches wide, middle bed eight feet six inches, and back bench one foot ten inches wide. This gives a front walk two feet three inches, and a back walk one foot ten inches wide, with a ten-inch board laid on the soil of bed to get through the center for cutting buds, cleaning, etc. (See Fig. 7). This style of benching I have found the most satisfactory of any, as it gives every plant a portion of direct sunlight.

For ventilating, I prefer a crank and shafting running all through the house, and lifting the whole continuous line of shafting at once. It costs but little more in the first outlay, saves an immense amount of time and trouble in after years, and when once up will last as long as the house does, only requiring a little oil at the cogs occasionally.

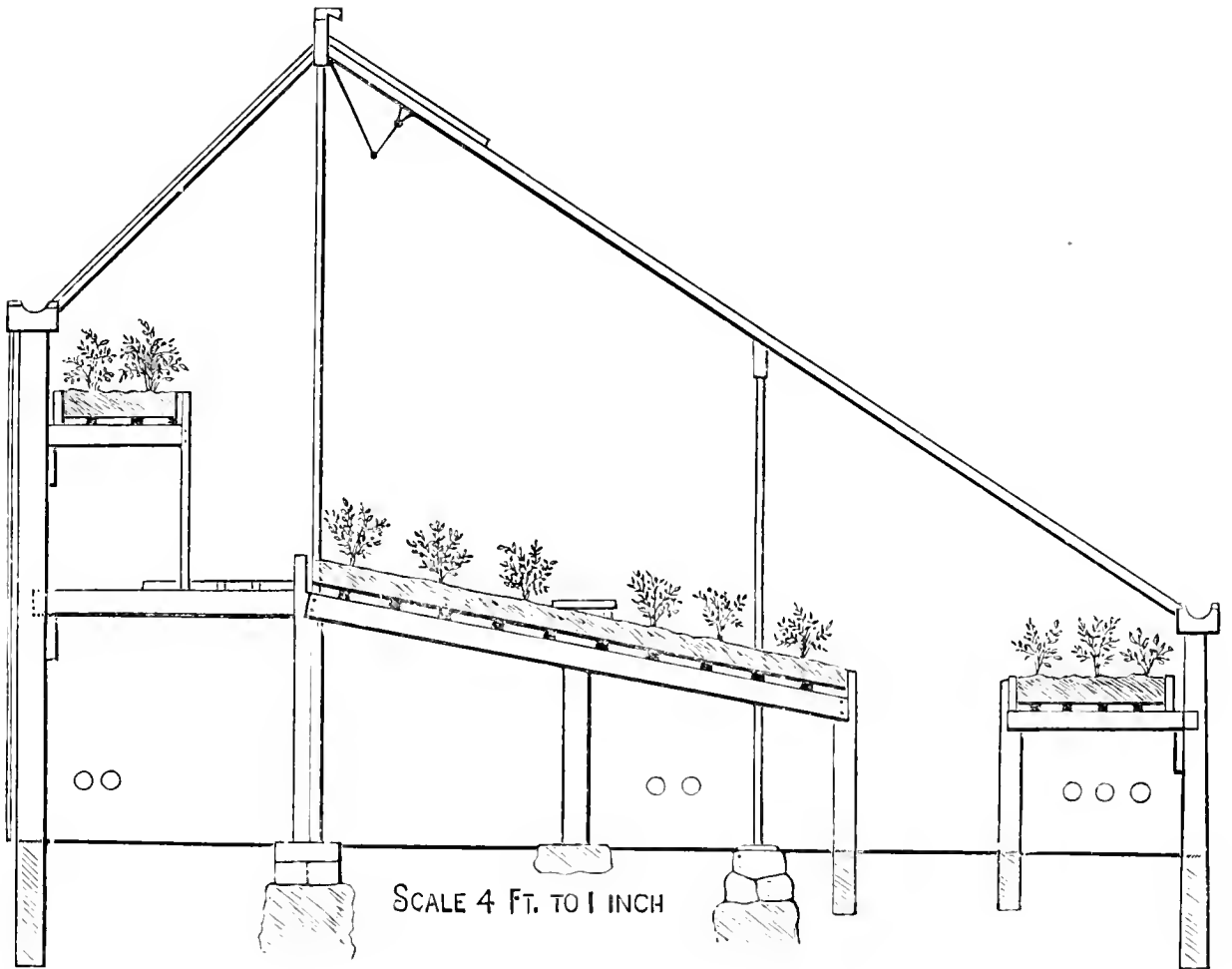


FIG. 7.

In opening ventilators from the ridge, it is necessary to put a cap (Fig. 8) on top of ridges. This prevents any drip during heavy rains, and also allows the ventilators to be opened in any sort of weather required. One great advantage of ventilating this way is that it lets the heated air out at the highest point, thereby avoiding cold draughts and currents of air, which are sure to be more or less troublesome when the ventilators are opened the reverse way.

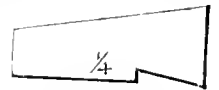


FIG. 8.

For the better illustration of how such a house is constructed, I have had a model made, which is on exhibition here for the inspection of all whom it may interest.

There is considerable difference in the material used for building greenhouses. For posts, locust is the best and cheapest in the long run; next in point of durability is red cedar. If neither of these can be had, take good sound white oak for this purpose. For the gutters, rafters, etc., pine is the best, but there must not be the least bit of sap in any part of it if yellow pine is used—and there ought not to be any in the siding either. For benches, etc., inside, hemlock is decidedly better and cheaper than pine.

Where the saving of water from the roof of the greenhouse is no object, the gutter recommended above can be substituted by a three by eight dressed plate, placed on a level to run the water off, thereby saving some expense and trouble in preparing the gutter; and, if in building the greenhouse, it is decided to build

it of less width, say sixteen feet, rafters of one and one-fourth by two and one half inches are heavy enough.

One thing from long experience I have learned is, that it is better to build less and do it well, than to build to a large extent and never have it satisfactory.

The CHAIRMAN, (after the convention had asserted its appreciation of the excellence of Mr. May's effort in a tumult of applause,) said: I wish to state that Mr. MAY has prepared a model, which is below in the exhibition room, illustrating very clearly points set forth by him in the paper just read. The model may be examined by members at any time during the present week.

The CHAIRMAN: I hold in my hand the reports of the Committees on Green-House Construction and Other Appliances, and on Cut Flowers, etc., which will be read.

The reports were here read (in the temporary absence of the Secretary, Mr. HILL,) by President TUORPE, and will be found in the appendix.

(NOTE.—At subsequent stages of the meeting of the convention, additional reports were received from the committees on exhibits. These reports will be found in the appendix.)

On motion, the committee reports which had been read were received, the committees discharged from the further consideration of the subjects treated of, and the reports ordered to be printed as a part of the proceedings of the annual meeting.

The CHAIRMAN announced, as the next business, the reading of a paper on "Pot-grown Decorative Foliage Plants for General Purposes," by Mr. JAMES TAPLIN, of Maywood, N. J.

POT-GROWN DECORATIVE PLANTS.

This includes a very wide area, not only comprising variegated plants, but also decorative plants generally. I am afraid this class does not receive the attention it deserves, for the reason that few of the foliage plants have very striking flowers. As a rule, the average amateur asks if it is a lily or if it is a fern, and what the flower is like. The Society of American Florists wish to spread information on plants in general, foliage plants included. This will prevent many amateurs who are willing to buy plants from being victimized by the "fakirs," who are always willing to sell wonderful plants and the buyer at the same time.

It is difficult to draw a line in this article, for it has been often shown that decorative foliage plants and variegated plants should not be shown in the same class if prizes are offered; but we, as free and unhampered florists, make no distinction in this point, but include all the decorative plants in the same class.

CALADIUMS.

I may mention a class of plants which, of late years, has gone rather out of repute without any just cause; that is caladiums. These plants are not only useful during the summer as pot plants for decorating rooms and green-houses, but are also fine for cutting leaves to decorate vases mixed with flowers. In

addition, it is one of the best plants for putting outside under trees where bedding plants will not grow well. These plants are among the easiest to cultivate; the tubers, after the plant is at rest, can be stowed in any place that will keep sweet potatoes well, and the plants, when growing, only require good rich soil.

Years ago, when I grew caladiums at Chatsworth, the plants were large masses in tubs with some of the tubers twelve or more inches in diameter, and foliage in proportion. These were grown in the Victoria house.

I presume I may call the *Victoria Regia* a decorative plant, although not grown in a pot; also the *Nelumbium speciosum*, which can be grown in a pot. The strange leaves with the stem in the center, and the wonderful flowers and seed stems, appear to include this plant among the foliage plants. But I need not ramble away from the strict letter of this paper, or I will require an hour's reading at least. So I will give a few descriptive notes of some of the most useful decorative plants.

PALMS.

A selection of palms is useful, as they stand tolerably rough treatment, and also the dry air of rooms in the winter. *Lutania Borbonica* is one of the best, being a regular fan palm, and will stand more rough usage than other palms. If it is well watered, and the temperature does not go below fifty degrees, it will flourish in an ordinary room all the winter. I saw some last winter on the mantel above the stove growing well, but the lady was an enthusiast in plants.

Among other palms, *Arca lutescens*, *A. rubra*, and *A. Verschaffeltii* are first-rate varieties to grow. *Cocos Weddelliana* is said to stand the treatment in rooms well, but being a variety making but few roots, it would be more delicate than some others.

The *Kentias* are among the most useful palms grown, and also among the most ornamental. These palms also make fine specimens without its being necessary to raise the roof of the green-house.

Among other palms, we may mention *Phœnicophorium sechellarum*, the celebrated "thief palm," which requires a very high temperature, and is too scarce for general decorative purposes.

The *Phoenix* or date palms are among the most useful decorative plants, both for the green-house, and also for room decoration. The variety *ruprestris*, a very strong grower, is good for the green-house, and also for rooms, but the newer variety, *rupicola*, is far superior to it.

The *Chamærops* are also well adapted for general decoration. The variety *excelsa* will survive a few degrees of frost.

The *Seaforthias* are also good decorative plants, but, being very free rooting, require more attention in watering than most palms. We can, of course, include among this general collection *Zamia*, *Macrozamia*, and *Cycas*, the latter being among the most useful plants for general purposes, more especially *Cycas revoluta*, or sago palm, so well known for furnishing "palm leaves" for funerals; why this should be so I cannot tell, the *Cycas* not being a palm.

But I must mention a few of the more fancy foliage plants, leaving out numbers of useful plants both for conservatory and house decoration.

CROTONS.

The Crotons, when well grown, are among the most showy plants in cultivation, both in growth and color; but to grow these plants well, they require liberal treatment, especially in giving abundant heat, and also what few variegated

plants need, abundant light. A small plant well colored is better than a large one without color. There have been so many sports and seedlings among Crotons of late years that it would be difficult to say which is the best, but among all the new varieties, (and I have grown a number of them tolerably well,) I think I would prefer the old *angustifolium*, as exhibited by Thomas Bains in England many years ago. I exhibited many varieties before the New York Horticultural Society some years ago, including *angustifolium*, perfectly colored, like a fountain of gold, and I think yet I like that better than the *Mooreana*, *Disraeli*, *Veitchii*, or any of the other sorts. But Crotons require liberal treatment, and are not plants suited to room decoration, as they must have a temperature not less than sixty degrees at any time, including plenty of moisture in the atmosphere. A good loam, with plenty of drainage, is the best pot treatment. I may mention that, although this country has abundance of insects, I have noticed we can obtain various new and choice species with the imported Crotons, which usually prevent any imported plants from making specimens, the only chance being to obtain a shoot on the top and make a plant from the cutting. I mention this from numerous trials, and I may also observe that I never saw any insects on plants from their native country, and seldom any plants without from Europe.

DRACENAS.

Dracenas are indispensable plants in general decoration, and most of the species and varieties will stand rough treatment. There has been a number of species and varieties introduced of late years, from their native tropics, and also large numbers of seedlings raised both in Europe and America. I saw several seedlings, raised near Boston, quite up to the mark.

There is always a good demand for *D. terminalis* when well colored, and this species will always sell, it being a good room plant.

ASPIDISTRA.

This old plant is quite useful to fill boxes and vases in rooms. It will stand any rough usage, including ten degrees of frost.

PANDANUS.

Although there are many species of these Screw pines, all more or less distinct, the only sort of general utility is *P. utilis*, the most valuable of all, which is used for room decoration more than any other plant. It will stand any sort of rough treatment short of freezing. *P. javanicus variegatus* and *P. Veitchii* are both variegated, but much more tender than *utilis*. These two should never remain in a temperature below sixty degrees for any length of time.

NEPENTHES.

We can scarcely avoid mentioning the *Nepenthes* or pitcher plants, which certainly are included in decorative foliage plants. In former times there was supposed to be a secret in growing these plants, but this was dissipated years ago, when people discovered that these plants could be raised from seed by thousands, and propagated from cuttings like verbenas, and also grown easier than verbenas of late years. I do not say we can plant them out in beds on the lawn, but if we have a warm, close house, with temperature from seventy degrees upwards, with some rough peat and live sphagnum to grow in, the plants require less attention than an ordinary bed of verbenas.

SARRACENIA,

an American pitcher plant, must also be included in this article, being plants of easy culture, and none of the varieties require very much heat. The species *purpurea* is a native of swamps from New York to Canada, and although I have seen it growing in a warm house in England, I have gathered it in a swamp on a mountain in New Jersey. The pitcher on these plants varies in growth and color as much as the flower. *S. purpurea*, the native of the Northern States, grows but a few inches above the soil, while *S. Drummondii*, from the South, will grow two feet high. Although all the flowers are strange and wonderful, one species smells like violets, while another smells like anything but violets! I have seen various sorts of insects perish by the thousand in the pitchers of both these plants, and also in the pitchers of the *Nepenthes*—so much so that the pitcher decayed, which refuted Darwin's theory that they fed on them.

MARANTAS.

These are among the most beautiful of foliage plants, and when well grown are excellent, but they require a very high, moist temperature, with shade at all times from bright sun. Under these conditions, the plants are easily grown, and well repay the grower for the trouble. Among the varieties, *virginialis major*, *Veitchii*, *rosea-picta*, and *princeps* are about the best.

ARUNDO DONAX VARIEGATA

is among the decorative plants, both inside and out of doors. Years ago it was grown for exhibition in a collection of foliage plants.

FICUS ELASTICA,

or India-rubber plant, is indispensable as a pot-plant for winter decorations. It will stand any heat and gas, if it is kept from very low temperature, well supplied with water, and the leaves frequently washed to clean from dust.

CISSUS AND DIOSCOREA.

Of climbing foliage plants, the *Cissus* and *Dioscorea* are the most showy, the one being related to the grape-vine and the other to the sweet potato. Both require a dense, moist, shady house, with abundance of heat to keep them in good condition. A tropical water-lily house is one of the best places for these plants.

CYANOPHYLLUM AND SPILEROGYNE.

Cyanophyllum magnificum and *Spheroogyne latifolia* are both splendid plants when well grown. Both require the same treatment as *Cissus*, and both, if exposed to a dry or cold atmosphere, will drop the leaves, only the bare stem remaining.

MUSA,

or bananas, are best known in this country by the fruit, but are very ornamental plants, either for a large conservatory or planted in a sheltered place out of doors during the summer. *M. ensete* is conspicuous for large foliage, and *M. coccinea* for its brilliant spathe of flowers.

PHORMIUM.

The New Zealand flax, or *Phormium tenax variegata*, is an excellent plant, both for green-house and room decoration in the winter. They are very easily grown for planting outside in the summer, only requiring plenty of water.

SONERILA.

These are among the genus of foliage plants, and, although belonging to the same natural order as *Cyanophyllum*, which would grow twenty or more feet high under favorable circumstances, the *Sonerila* seldom exceeds six inches in height. For many years only one species was in cultivation—*S. margaritacea*. It was a charming little plant, with small, oval leaves, dotted with silver, and in the winter covered with spikes of rose-colored flowers. Being a native of Java, it needs a very high temperature, but requires propagating each year, as it must be almost an annual. A few years ago there were several distinct varieties introduced, which varied much in the foliage, but with the same type of flowers. Some of the leaves were silvered over, and others striped. I do not know if these varieties were seedlings or sports, but from variations I have seen in cultivation, I think they were sports. At any rate, they are all beautiful, and all require the same treatment.

BERTALONIAS.

These are charming decorative plants related to the *Sonerilas*, but with much larger and more beautifully colored leaves. They require much the same treatment as the above, but need a closer and moister place; in fact, a glass case in a warm house with dense shading suits them best.

BEGONIAS.

The *Rex* varieties, of which there are many, will do for conservatory decoration, and also for inside and outside baskets. Any light, rich soil will grow these plants well, with lots of water in the summer, but nearly dry in the winter.

COLEUS.

A few of the most distinct and bright colors make useful plants for conservatory decorations. With rich soil and an abundance of water, grown in full sun, they make a fine display.

FERNS,

of course, are indispensable, but in the space of this article I cannot mention many varieties. All the sorts require more or less shade and abundance of water, especially during the summer, but such as *Gymnogramma* and *Pteris tricolor* must not be watered over the foliage. *Adiantum* and *Pteris* are among the most generally useful for ordinary decorations, both in glass-houses and in rooms; whilst the *Dicksonia* and *Cybotium* are among the best tree ferns for those who have large green-houses. Nothing is more delicate, either as plants or for cutting, than the *Gleichenia*, which only requires a green-house kept at a temperature of forty degrees in winter. These plants, throwing out suckers in the way of a raspberry cane, naturally require more surface space than depth, and are best grown in pots wider than they are deep.

AGAVES AND YUCCAS.

These are very handsome foliage plants, and are especially useful for outside decorations during the summer, and require less attention in winter than plants in general. The very thick-leaved varieties, such as *A. Americana*, will stand in a warm shed from autumn until spring without being watered.

MONSTERA DELICIOSA.

An old plant not much in cultivation; does well out of doors during summer,

but grown in a warm green-house, where its roots can wander in a tank of water, it is most at home and will fruit freely. Its strange arum-like fruit, which requires a year to ripen, is beautifully scented, and of a fine flavor, but must be eaten at a certain stage of ripeness; otherwise there are numerous sharp prickles in the sections of fruit, which act on the throat somewhat the same way as prickly pear spines.

PAPYRUS ANTIQUORUM,

said to be the paper plant of the Egyptians, is a handsome decorative plant for the green-house in the winter, or for lakes and ponds, or even in the sub-tropical garden during the summer. It has a grace peculiar to itself, but assorts well with such plants as *Nelumbium* or *Caladium esculentum*.

The CHAIRMAN announced, as the next business, the reading of a paper on "Carnations and Their Treatment," by Joseph Tailby, of Wellesley, Mass.

THE PROPAGATION AND CULTIVATION OF THE PERPETUAL CARNATION.

We will begin with the propagation. The best time for this is about the last week in February to the middle of March. Before taking the cuttings, perhaps it would be best to prepare a place for them. I use six-inch pans, three and one half inches deep. Boxes will answer the same purpose. Place crocks over the holes in the bottom, then about one inch of coal ashes, and fill up with clean sand. Make firm, give a good watering, and they are then ready for use. I prefer this to the bench system, and will give my reasons further on.

In selecting the cuttings, choose short-jointed, tolerably firm, but not too hard wood, with one pair of fully developed foliage. Pull at a joint as near the base as possible. Place them in the hand with the lower ends even, and when you have as many as you can conveniently hold, trim off the tips. I do not think this makes much difference. It is about the same as cutting a dog's ears - it makes him look a little neater, and there is not so much of him to wilt if he gets into a fight. This is the time the carnation begins to fight on its own account.

As soon as the cuttings are prepared, place them in water, as they should not be allowed to get dry. Then dibble firm in the pans, give a good watering, place in a cool, shady position, and sprinkle often. When well calloused, give a little air. As soon as they are rooted, shift to a more exposed position, (this is where the pan has an advantage over the bench,) so as to harden them off before transplanting in boxes or pots, as the case may be. I plant in boxes about one and one half inches apart, using boxes about three inches deep, with about one inch of drainage. For compost, take two parts of loam to one of well-rotted manure. If the loam is stiff, add a little sand. After planting, water moderately, just enough to settle the soil firmly about the roots. Shade and sprinkle for a few days until they are established. After this give more air and not too much bright sun. The most critical time is from now until they get into the open ground. If they are allowed to become dry or get scorched, the rust or canker is sure to attack them. Keep from green fly and red spider. As soon as perfectly established, move to cold frame. Give all the air possible, but do not let them freeze.

As soon as the weather will permit, and the land is in good working order, plant out in rows fifteen inches apart, and ten inches in the rows. The best soil is good yellow loam, rather light. They will make more fibrous roots, but not so

much growth as in heavy soil. It is not robust growth we want, but good, firm wood. For manure, I find horse manure the best. If the soil is old, that is, been under cultivation a long time, give a good dressing of lime. The reason that the carnation does not do well in old land, is the deficiency of lime. The carnation is something like wheat. Too much manure and a deficiency of lime will not only produce an abundance of coarse straw and bran, but disease also. The flour from such wheat is coarse and of poor quality. It is just the same with the carnation. New land is the best, although I have grown my plants on the same land for the past ten years, and they have always done well. Any one else can do the same by following the above treatment. Of course the plants must be stopped during the season so as to make them stocky.

Get the plants inside before the cold weather sets in, so as to have them well started before using fire heat. For compost, use three or four parts of good maiden loam to one of rotten manure. Plant about ten inches apart and give a good watering, so as to settle the soil well at the roots. Sprinkle two or three times a day until plants are well established, and begin to make new roots. After this, they will take more water and all the air you can give them. Look out for the green fly. Check it as soon as it makes its appearance. The temperature of the house should not be lower than forty-five degrees at night, and from fifty-five to sixty-five degrees by day. This, of course, will depend upon the weather. Give plenty of air, even at the expense of a bit of coal. Do not give too much water. Unless airing and watering are properly attended to, you cannot get good flowers or keep your plants in a healthy condition.

About the beginning of January, give them a dressing of good fertilizer or liquid manure. You can repeat the dose once a month. I have not yet mentioned anything as to pot culture. The treatment is the same, only the compost should be made richer and coarser. The best is rotted turf chopped about half the size of an egg; pot firmly. A six-inch pot is large enough to grow them in. Give one and a half inches of drainage, using the same material as for the cutting pans. When the pots get tolerably full of roots, give liquid manure once a week. A very good liquid is made by using one ounce of sulphate of ammonia to three gallons of water. I prefer this to liquids made from manure, as it is cleaner to handle, and does not clog the pores of the soil in the pots, and answers the same purpose.

In regard to the disease of the carnation, I am not sure that there is any cure for it. I am now experimenting on it. To prevent it, keep these rules in mind: Get healthy cuttings, root them slowly, and as soon as rooted, give them air and more room. This you can do if they are in pans and boxes. If in cutting bed, get them out as soon as rooted. Should they stay in bed they get weak. This is when the disease attacks them. This point I am sure of. Do not check them in their growth from the time they are rooted until they are in the open ground. If your soil is in good condition, I do not think that the disease will trouble you. I am satisfied if the treatment, as laid down in this article, is adhered to, that you will not be troubled with any disease.

The best houses to grow them in are large and roomy, with a southern aspect; due south, that is, if you want them for winter use only; a little east of south, if you wish to grow them all summer, as I do. In small houses you cannot give air at times when it is wanted. Take, for instance, when the thermometer indicates zero outside with a bright sun shining. As soon as you open the ventilators, the cold air is on the plants, and your house is chilled, when, before the air

was put on, it was up to ninety-six or one hundred degrees. With a large house, you can give air at any time when necessary. The weather outside may be dull and raw, but never mind. The air admitted is fresh, and in a large house is moderated to the temperature of the house before it gets to the plants. It will take a little more coal, but this is a slight matter when the health of your plants and the quality of the flowers are taken into consideration.

MR. HENDRICK, of Albany, N. Y: From that little island on the other side of the Atlantic, we have had imported some rare specimens of men and things, and among them is this "Tail-boy," or Tail-by, who has given us some useful information on the subject of carnation-growing. We shall not forget his quaint remark about the trimming of the dog's ears and like expressions, and we shall remember him most pleasantly for his paper of this afternoon. I have no doubt you will agree with me when I say that he deserves our united thanks for his very excellent paper, and I most cheerfully accord him mine. I would like to include in the vote of thanks a similar cordial acknowledgment to our genial friend and able plantsman, James Taplin.

The CHAIRMAN here stated the motion, viz: That a vote of thanks be extended to Messrs. Tailby and Taplin for their able and excellent papers on "Carnations" and "Decorative Foliage Plants."

The motion was carried by a unanimous vote.

THE QUESTION BOX.

The CHAIRMAN: A number of queries have been deposited in the Question Box, and it is the duty of the Chair to see that they are answered.

The PRESIDENT (MR. THORPE): One of the questions deposited in the box is this: "Do the auction sales injure the poor florist?" (General merriment and applause.) The Chair does not know a gentleman more capable of making a satisfactory reply to that question than Mr. Peter Henderson.

MR. PETER HENDERSON responded: I am afraid that I am indebted for this honor to my friend, the Hon. Robert McCrone, an ex-member of the Connecticut Legislature, and at one time, I believe, a presiding officer in that body. Will the Chair kindly repeat the question so that I may know what it is?

The PRESIDENT: "Do auction sales injure the poor florist?"

MR. HENDERSON: There is no doubt that they do, and there is no doubt whatever that they injure the rich florist, if such a person exists. I believe that the practice is one that affects the business of the florist, whether he is rich or poor, more seriously than any other possible thing could. I would give to-day, gentlemen, five thousand dollars a year if I could stop auction sales in New York, and I would make

ten thousand dollars a year by so doing. I have tried my best to pension off William B. Elliott and to endeavor to have him stop everybody else, but he will not accommodate me.

You may ask me, "Why do you countenance auction sales?" My reply is that, I do it in self-defense. Until about six or seven years ago I did not sell a plant at auction in the spring. I then found that my entire sales for an area of two hundred miles around New York had been cut off by somebody else selling at auction, and that I had to take a hand in it if I would save myself. That is the real fact about the matter. But, gentlemen, you cannot stop this thing. There is no way of stopping it that I know of. It is simply a natural incident of the competition of trade, and, no matter how much we all suffer from it, (because we all do suffer from it,) there seems to be no way by which we can stop it.

A DELEGATE: It is like the black spot—you cannot stop it.

Mr. HENDERSON: Yes, exactly. If any of you gentlemen can tell me of a way of stopping it, I would be glad to hear it.

The CHAIRMAN (after Mr. Henderson had retired) called attention to the interesting character of the subject, and invited five-minute remarks by gentlemen disposed to throw light upon it.

A delegate moved that the gentleman from Connecticut (Mr. McCrone) be now given an opportunity to be heard upon the question, in opposition to auction sales.

The motion prevailed without objection.

Mr. ROBERT McCRONE, of Thomsonville, Conn., here made his appearance in the open space in front of the platform, and was received with a *furore* of enthusiasm and genuine good humor. He said:

Gentlemen: In speaking on this question, it is not my intention to cast any reflection upon what are called "large growers." I contend simply to-night that, in this matter, large growers are the largest sufferers. I had intended to submit a motion here on the subject, and it was one with a benevolent purpose and designed to save all men, but more particularly the large growers. The operation of this auction system shows that it arises from a selfish disposition in human nature to centralize everything in the hands of a comparative few by crushing out the small growers. Practically, it has brought about this condition of things, that all small growers are crushed out, and now the large growers are going to crush out each other; and they are going to be the great losers in the matter.

Now, gentlemen, the question has been very pertinently asked here to-night, "What are we going to do about it?" They ask us, "Isn't this a land of liberty—can't every man sell his goods as he likes?"

To be sure it is; to be sure he can; but, gentlemen, the situation is this—humanity through all its progress has shown the same thing—that men operate from two motives; one motive being a fear of consequences, while the great motive that actuates mankind is a regard for the good-will of our fellow-men. Now I say that if this convention expresses its opinion on this subject, it will declare that its regard for the good-will of all men dictates that it shall protest against individual florists being ruined by a few growers. We do not come here as Knights of Labor, gentlemen; we do not come here to enunciate the ideas of that class, but we come here to protect our individual selves; and if we do not do that, it is useless for us to come here to flatter each other, and go home with mere nonsense in our mouths. (Merriment.) Why is a civilized man the superior of a savage? It is because he has the capacity to look after his own interests in a careful, cool, and intelligent way. We came here to do that. We have undertaken to-day to look over our business historically, and forty years is the period over which we have looked back. Forty years ago a bricklayer was getting from \$1.50 to \$2 per day, and by taking care of his own interests—as we propose to do here to-night—he now gets \$3.50 per day. He is not a Knight of Labor any more than we are Knights of Labor. Now, what we want is this: that we should get as much from the product of our labor as the market will fairly give us, and that we should get as large a percentage of the product of our labor as the markets of the country will give us. Is not that going to make us better off, to make us more intelligent and better men? Now, I say that this auction system originates in selfishness, and greed, and tyranny, and that its effect is to crush the small florists in our midst. Why, gentlemen, the grand maxim of Christianity is this: “Love your neighbor.” This auction system is the climax of the opposite doctrine, “Kill your neighbor as quick as you can.” We are in an historic city—one with a wonderful history of peace—and we are taught to-day, from the highest to the lowest, that we ought to love each other. The people of this city are true to its traditions; and even those in the same business, if in different localities, love each other like brothers, but if they happen to live on the same street, they have a Belfast riot!

(NOTE.—At this point the utterances of the speaker became wholly inaudible at the reporter's seat, being completely drowned in the uproar of hilarity provoked by his peculiar earnestness and enthusiasm. In the interval of quiet which followed an announcement by the Chair that the allotted ten minutes had expired, Mr. McCrone was heard to reply that he, with others, having come all the way from Connecticut,

meant to speak their minds on the pending question, and he was now satisfied with the opportunity that had been given him.)

The PRESIDENT: Another question found in the box—I don't know whether I dare submit it—is this: "Shall we deal direct with the retail florists or through brokers?" The Chair would request Mr. Stewart to kindly reply to that query.

Mr. W. M. J. STEWART, of Boston, Massachusetts, promptly responded as follows:

The duty of answering that question ought to have been assigned to some one other than myself, if an unbiased answer is wanted, because you can all anticipate what would naturally be my reply to such a query. I answer, "Certainly deal with a broker." I will tell you in a very few words the reason for it, and I trust that in what I say it will not be inferred that I am influenced by any undue personal consideration.

In dealing with the retailers, your transactions are distributed among a number of people, and you are compelled to keep a number of accounts, some of which are of considerable length. In dealing with a broker, your business transactions are conducted with only one individual, and you have easy access to your account, and are not subjected to loss of time in hunting around to collect bills in driblets. Another consideration is that, through the broker, you have facilities for reaching a better market than you are likely to reach in the other case. The broker, with the means of communication which he commands through the medium of telegraphic and railroad facilities, and his acquaintance with the details of the business and with the people engaged in it, can readily bring you into communication with all the markets that are within a thousand miles of your door. By this means you save, also, the cost of one man's time. I do not know that I ought to say it, but it has been truly said that we have found, in Boston, when a man goes to the city in the morning to sell flowers, he is not worth much, if anything, for the rest of the day. I trust, however, that that may not have been the experience of those whom I now address. You might as well take it for granted, however, that if you are going to sell to retailers you have to charge yourselves with this item of one man's time.

I would suggest further that, in dealing with the broker, you are more apt to secure uniform, as well as better, prices. The consideration which is entitled to the greatest weight is, perhaps, the fact that very few growers who have made a practice of consigning their goods to brokers have abandoned that practice. Many who have tried the plan of selling to retailers have afterwards tried the commission

men. You may say that the latter have not invariably given satisfaction; but, after all, the fact remains that, as a rule, those who patronize them stick to them; and it is fair to assume that they know their own business best. I think that what I have now stated may be considered as answering the question.

A DELEGATE: How is it when the commission men do not pay you anything?

Mr. STEWART: I would reply to that by asking, how is it when the retailer don't pay you anything? I have myself sent to many retailers, and have got nothing; and it may be fairly assumed that in that respect your chances, when consigning your goods, are about even in either case. If a commission man, with three or four hundred accounts on his books, collects within five per cent., he does well.

A DELEGATE: If he gives you nothing on what he collects—if he keeps the whole business—how is it then?

Mr. STEWART: I would prefer not entering into a discussion of the subject at this time, as the duty assigned me is discharged by a direct reply on my part to the question as submitted. The subject is not presented in the form of an essay, and in the few words to which I have called your attention, I have endeavored to reply to the best of my ability.

The PRESIDENT: "Which will be the most fashionable flowers for next winter's use?" is the next question from the box. Mr. J. M. Jordan will please reply.

Mr. J. M. JORDAN, of St. Louis, Mo., responded that, when a boy, he was taught, in attempting to elucidate an idea, not to volunteer his own opinion, but to cite proofs or facts having a tendency to substantiate the idea. He desired to say that, as he did not claim to be an embodiment of wisdom, he could only answer the question by citing the results of his every-day observations, and by judging of the probabilities of the future by the actual developments of the past under like conditions. He continued:

When I look around me in the various places in which florists are preparing their product for next winter, what do I see? When I visit one of these places with fifty thousand feet of glass, to what do I find it devoted? I find that one small house has been given to violets, another little house to lilies of the valley; but that the great bulk of the establishment, about four-fifths of it, is appropriated to roses. If I go into the market and ask the florists who are making up the flowers for the trade, I am told that about four-fifths of the product of their stores consists of roses. If I find that the sales of roses in the establishment of one florist amount to one thousand per day, of what do

I find the balance to consist? He will have, perhaps, a few hundred lilies of the valley and a comparatively small quantity of different varieties. Flowers that are the most fashionable are naturally those for which there is the most demand and readiest sale, and these are the flowers which are generally produced by the growers. I do not know what may be the most fashionable flower in the coming winter, but I can surmise what it will be from what experience in the past has shown. I know that, ten years ago, in the establishment with which I am concerned, we had probably about one hundred roses per week, and used from five or six hundred to one thousand camelias. Now that is changed, and we use our thousand or more of roses per day, more in one day than we formerly used in an entire winter; and I think the end is not yet.

The PRESIDENT: Still another question remains for reply. It is this: "Are orchids the coming flowers, or, in other words, will the orchid drive out the rose as that flower has driven out the tuberose and camelia?" Mr. Siebrecht will reply.

MR. HENRY A. SIEBRECHT, of New Rochelle, N. Y.: This question is rather a bold and a sharp one, and requires a broad answer, but I do not propose to answer it to the point. Orchids, as you all know, have been introduced among our growers of late years, though this claim can hardly be made for them from a commercial stand-point, as private parties have had their own way, so far as orchids are concerned, until within the last three or four years. The reason for this was because of the price of the plants, either in the way of importing them from Europe as established plants, or in getting them from their native clime in the dormant state. My friends say I am an enthusiast on orchids. Perhaps I am, for I confess to you it is my firm belief that orchids, some day or another, will be "the flower." I do not say that roses are going to be driven out—not at all. The rose will still be the "queen of flowers." There is no getting away from that fact, because there are too many well-founded reasons why orchids can never take the place of roses. In the first place, you cannot have them in quantities. In the next place, you cannot produce them for the million. On the other hand, roses and other flowers are prolific. The rose business is now conducted with such precision, and the future supply so well regulated in advance, that dealers can safely make contracts at the beginning of the year for large quantities of roses at a specified price, to be delivered at some time in the future. It is impossible to do this with orchids—their time has not yet come. Nevertheless, as I said before, I am a firm believer that, at some time or other, orchids will find a place for themselves and may take the

place of your fancy roses. My reason for this belief is based upon the proneness of our profession to copy after the old country. We have introduced their roses as they came along, and have grown, sold, and used them. The orchid is the choice flower in England and other European countries to-day. Under present conditions, however, as I have said, the orchid cannot drive out the rose, because of the impossibility of filling large contracts for orchids exclusively, as the supply is insufficient. No amount of money could induce a florist to take an order for furnishing orchids for an extensive floral decoration, as he could not possibly procure them. Whenever the supply has sufficiently increased to warrant their sale at a reasonable market price, orchids will begin to pay in a commercial sense and will be fashionable, but we will have to wait until that time arrives. In the event of the rose dropping out because of black spot or disease, the orchid would very probably be its successor.

The PRESIDENT: The next question from the box is this: "Should not this Society take some action condemning the practice of rich men going into the business of raising cut flowers for the city market." The Chair calls upon Mr. HENDRICK to respond.

Mr. JAMES HENDRICK, of Albany, N. Y.: I prefer not to reply; but, as it becomes my duty, I answer, most emphatically and decidedly, "no"—a thousand times "no!" What constitutes wealth? Is it more than the result of accumulated labor, and which of you has not the same aims that the wealthy man has? As long as God has given me a head to think and a two-handed estate to work with, what need I care for the man of wealth in a country like this of ours, where competition will always bring to the front the best? I have listened with much interest to-night to the various questions and the answers to them, and have kept quiet in listening to this reported evil of auctioning plants off, and I ask, as Tweed once did, "What are you going to do about it?" If William B. Elliott was to cease to-morrow, others would rise in his place like mushrooms. If this Society condemns the auctioning of plants, and those engaged in that business should relinquish it instantly, we should find, in less than six months from now, that the number of people engaged in and willing to sustain the practice is fully equal to the number now engaged in it and who are opposed to it. To modify evils of that character, we have to meet them like men. If the auctioneer is the best man to sell our product, let him sell it and be subject to private competition. All other classes of business are subject to the same competition. What better is ours than theirs? Submit to competition—the public will appreciate it.

I have answered this question as well as I knew how. I noted with

pleasure the enthusiasm of my friend McCrone. Enthusiasm is one of the forces of nature. What would business be, nay, what would the world be, what would this Society be, if deprived of enthusiasm? While I may not approve of his theories, I would, in the strongest manner, exhort this Society to infuse as much enthusiasm as possible into all of its operations. What I said this morning I now repeat: If you want to excel, do as Emerson advises—hitch your wagon to a star and drive up to it.

The PRESIDENT: The next question is, "What is the cause of the disease called 'club root' on roses, and what is the remedy?" Mr. J. N. May will kindly reply.

Mr. JOHN N. MAY, of Summit, N. J., responded: It is caused by an insect which deposits its eggs on the roots, the deposits developing in what is known as "club root." The remedy is to clean out the old soil and substitute fresh maiden loam, taken from a place where no trees are growing.

One word upon another subject. The rose is not the only plant in existence which is subject to black spot. In my experience, I have found orchids very much afflicted with that disease. (Merriment.)

The PRESIDENT (humorously): Gentlemen, I think the black spot is spreading very rapidly!

On motion of Mr. HENDRICK, the convention here adjourned until ten o'clock, A. M., on Friday, 20th instant.

ATLANTIC CITY, N. J.,
THURSDAY, August 19, 1886.

The Society of American Florists arrived here on a pleasure excursion this morning, escorted by the Florists' Club of Philadelphia. Many of the visitors were accompanied by ladies, and their number was estimated to be six hundred and thirty-five. The United States Hotel was the head-quarters and place of rendezvous. The visitors occupied themselves in bathing, fishing, sailing, sight-seeing, and the other pastimes of a seaside resort.

At noon the excursionists sat down to a lunch in the spacious dining-room of the United States Hotel. Mr. William F. Dreer, chairman of the reception committee appointed by the Florists' Club of Philadelphia, made the following address:

Ladies and Gentlemen: It gives me great pleasure, on behalf of the Florists' Club, of Philadelphia, to welcome you all to the "city by the sea." We are anxious that you should enjoy yourselves, and hope

that the attractions of this resort will be sufficient to divert your minds from all business thoughts. They remove us temporarily, from business to soil, water, and wind, the three opposites to our pursuits; but we hope that they will stimulate appetites such as only horticulturists can enjoy.

We anticipate for you a promenade on the beach; music in the pavilion; a dip in the sea; and, by seven o'clock, P. M., a safe return to the City of Brotherly Love.

Chairman DREER further announced that no set toasts would be given, as it had been arranged to defer all speeches. He also stated that the ladies' local committee would hold a session to-morrow, 21st inst, at nine o'clock, A. M., at the Colonnade Hotel, Philadelphia, and would escort their lady guests to Fairmount Park and other places of interest.

The orchestra here began a series of performances, and the banqueters proceeded to do justice to the feast set before them.

The festivities terminated, and the excursionists took their departure at seven o'clock, for Philadelphia, which was reached at half past nine, P. M.

SECOND DAY—MORNING.

HORTICULTURAL HALL, PHILADELPHIA,

Friday, August 20, 1886.

The convention re-assembled pursuant to the adjournment on the 18th instant, Mr. J. M. JORDAN of St. Louis, Missouri, in the chair.

President THORPE, in an informal way, expressed the hope that all the ladies and gentlemen present had enjoyed themselves as he had on the Atlantic trip. He declared his firm belief that the day was the most enjoyable one of his life.

The CHAIRMAN announced, as the first business in order, the selection of a place for the next annual meeting.

Mr. JOHN HENDERSON, of Flushing, New York, suggested that the meeting in 1887 be held at Chicago.

Mr. MYRON A. HUNT, of Chicago, cordially seconded the suggestion; and pleaded the claims to recognition to which he believed Chicago to be entitled at the hands of the Society of American Florists. He reminded the convention that two years ago last June, the Society had its birth in that city. Now, when it had developed into an in-

strumentality of great influence and usefulness, the Society should not deny to its foster-mother the gratification of embracing her own off spring. In behalf of the florists of Chicago, he urged the adoption of the proposition without dissent, and stated that he held in his hand a letter which he had received this morning from one of the representative men of Chicago, who was largely engaged in the business of floriculture, expressing regret in being unable to attend the convention at this time, and an assurance of his desire that the next annual meeting should be held in Chicago.

Mr. C. B. WHITNALL, of Milwaukee, Wisconsin, supplemented the appeal just made by stating that many of the delegates from the North-West, who came from towns which did not possess the requisite facilities for accommodating the convention, would, with the consent of the Chicago delegates, gladly join hands with the latter in welcoming the Society at its next meeting.

The CHAIRMAN remarked that, as the apparent unanimity of sentiment in favor of Chicago foreshadowed the selection of that city, he desired to say, on behalf of St. Louis, he believed the visitors would be heartily welcomed, and that the delegations from Boston and all other points throughout the East would have an exceedingly pleasant experience if they would only come out and see their friends in the West. He added: Chicago and St. Louis are neighbors, close together, and have a common interest in each other's success. As you all know, we are always very friendly toward each other! (Great laughter.)

Mr. JAMES HENDRICK, of Albany, New York. It affords me great pleasure to enunciate the fact that the millenium is approaching, if we are not already in the midst of it. Chicago, St. Louis, and Milwaukee join, and they join in inviting us to Chicago! Can we refuse? No! (Applause.)

The CHAIRMAN here submitted the question to the convention, and it was determined by a unanimous vote to hold the next annual meeting in Chicago.

The CHAIRMAN announced, as the next business, the election of officers of the Society for the ensuing year, and invited nominations for the office of president.

Mr. JOHN N. MAY of Summit, New Jersey: I rise to nominate a gentleman of whom I can speak from actual personal observation in my association with him in a business way, and who, by reason of his general aptitude and experience, is eminently fitted to discharge the duties of the chief executive officer of this Society. I am confident that when I mention it, all who hear his name will coincide with me in recommending him. He is a man of sterling worth, of indom-

itable energy, and one who is untiring in his zeal for the promotion of the interests of this Society. I regret that business of a more than ordinarily urgent character calls him from our midst this morning. Doubtless you have all realized to whom I allude. He is to be found in the person of Mr. ROBERT CRAIG.

Several delegates seconded the nomination.

Mr. JAMES HENDRICK, of Albany, New York: I rise for the purpose of indorsing most cheerfully and emphatically every word that has been said to the credit, the renown, and the energy of Mr. CRAIG, of Philadelphia. But I would be false to you, false to myself, and to my convictions if I did not say one word or two additional before this election takes place, and I trust you will bear with me if I try to be in order and not make my speech too long.

Looking on the face of nature, every observer realizes how short the life of the alder is, and how long that of the oak is. We understand perfectly well the difference between the annual and the perennial flower. That good old book of ours tells us that grass lasts for a day. It is cut down and burned in the oven and is no more. On the face of all nature there is this constant change. There is no greater curse to the age in which we live than this constant desire for change in governmental offices. It is marked by defalcation in every prominent city. If that is so, is it not time, and is not the opportunity presented in the commencement of this Society, that we should lay our foundations deep and permanent, and not prone to the evils of constant change? With this view, I propose just at this time, for the consideration of the Executive Committee entrusted with the management of the affairs of this Society, that in arranging for its future officers, the provision be embodied in our rules that elective officers are eligible for re-election for a term not exceeding three years.

In a society like this one, which is scarcely past the age of infancy, it would have afforded me pleasure to indorse the entire officers of the Society for at least another term. I would have done that under the conviction that I was serving the best interests of the organization in laying a foundation that would last longer than these gray hairs. But since the custom is otherwise, I am not here to oppose the nomination of Mr. CRAIG—I am here to second that—but I wish to put in the suggestion just here that the committee, at its next meeting, should consider whether the president, at least, should not only be eligible to reelection for three successive years, but should be elected for that term by a direct vote.

The CHAIRMAN: The Chair pauses to hear any other name suggested for president.

A delegate here nominated Mr. John Thorpe.

MR. THORPE: I am sorry to be obliged to decline the compliment—not that the office is distasteful to me, but because its duties are so arduous that I cannot possibly, in the future, give that attention to them which they ought to have. For this reason alone I must positively decline the nomination. I think that Mr. Craig is one of the most energetic and efficient men whom you could pick out of your body; and I am pleased to say to you, gentlemen, that I am sure he will make a most excellent president, and a much better one probably than I have been.

THE CHAIRMAN: Gentlemen, you have heard the declination of your president. I think that, unless there is objection, we will have to receive his declination.

MR. EDWIN LONSDALE, of Philadelphia: I nominate Mr. John Henderson, of Flushing, New York.

MR. JOHN HENDERSON: I must decline the honor, for I feel that I could not undertake to discharge the duties of the place. You are aware that I have been living a very active life for a number of years, and I now wish to enjoy the fruits of my labor and to take a little more leisure than I have yet been able to secure. For this reason I must respectfully, but emphatically, decline the honor.

MR. THOMAS DEWITT, of Bristol, Pa.: I move that nominations for president now close.

Adopted without dissent.

On motion, the Secretary was directed to cast a ballot, as indicative of a unanimous vote for Robert Craig, of Philadelphia, for president for the ensuing year.

The secretary reported that the direction had been complied with, and the chairman made proclamation of the fact.

The Chairman announced, as the next business, the election of a vice president at large.

MR. R. J. HALLIDAY, of Baltimore, nominated J. C. Vaughan, of Chicago.

MR. J. M. HICKS, of Summit, N. J., nominated John N. May, of Summit, N. J.

MR. MAY: I thank the gentleman who has kindly nominated me, but I respectfully decline the honor, for the reason that I can do more good to the Society as a humble worker in the ranks, or as a "whip," if you like to call it that, than I could in any important office.

MR. PETER HENDERSON, of Jersey City, N. J., nominated Mr. J. M. Jordan, of St. Louis.

THE CHAIRMAN, (Mr. Jordan:) J. M. Jordan most emphatically de-

clines. I have the honor to speak for him! You have already nominated the right man, gentlemen, if I can speak for you.

On motion, the nominations here closed, and the Secretary, in accordance with a unanimous vote of the convention, cast a ballot for J. C. Vaughan, of Chicago, for the office of vice president. Mr. Vaughan was declared to have been elected.

The CHAIRMAN invited nominations for the office of secretary.

Mr. HENRY A. SIEBRECHT, of New Rochelle, N. Y., nominated Mr. Edwin Lonsdale, of Philadelphia.

Mr. E. G. HILL, (the Secretary:) I wish to second the nomination just made. I know of no one with more aptitude for, or better qualified to fill, this important position than Mr. Lonsdale. He has every qualification necessary, and, not only that, but he is known for his largeness of heart and soundness of judgment. I am sure you will appreciate his ability, and that he will fill the office better than it has been filled in the past. I heartily second the nomination.

On motion, the nominations closed.

On motion of Mr. James Hendrick, the Secretary was instructed, by a unanimous vote, to deposit the ballot of the association for Mr. Lonsdale, who was duly proclaimed to be the Secretary-elect. (Applause.)

The CHAIRMAN invited nominations for treasurer.

Mr. CHARLES F. EVANS, of Philadelphia, nominated Mr. Myron A. Hunt, of Chicago.

The nomination was greeted with applause, and, being the only one made, was ratified by a unanimous vote and a ballot deposited, as in the case of the other officers.

The CHAIRMAN, (Mr. Jordan,) after announcing that the regular business of the morning session had been concluded, stated that he had been requested to occupy a portion of the brief interval preceding the exhibition to be given by Mr. Le Mout, the New York florist. He then went on to congratulate the convention, first, upon the glorious good time it was having in Philadelphia, and, next, upon the wonderful success which had attended the national organization of the American Florists from its inception. Starting about two years and a quarter ago, the idea of the organization being conceived in Chicago, the Society was brought into life in the great city of Cincinnati, a city which, though not territorially as great as some, was eminent for the excellence of the tastes of its people, as shown by their appreciation of flowers and plants and their encouragement of the fine arts, such as painting, sculpture, and music. It might now be said that the organization of the Society had been christened in Philadel-

phia and at the "city by the sea." A jollification at the birth and a glorious christening having introduced the Society to the notice of the country, he thought the organization should now begin to show its natural vigor and its capacity to accomplish results. He expected that next year it would go to Chicago, that city of uprightness, honesty, and beauty, with all the enthusiasm and power of a young giant. He desired to repeat to his Eastern friends the remark made on the previous day by a gentleman from Chicago, when, for the first time, his attention was called to the glorious Atlantic, with its mighty billows rolling into the shore. "Yes, it is very fine," he observed, "but you ought to see Lake Michigan!" The delegates had now seen the Atlantic, but he (Mr. Jordan) wanted to say to them that they "ought to see Lake Michigan."

Mr. HURT expressed his appreciation of the compliment to Chicago which he had heard, and assured the convention of fair treatment in that city a year hence.

The CHAIRMAN (President Thorpe in the chair) announced the arrival of the hour appointed for an exhibition by Mr. A. Le Moutt, of New York city, of his handiwork in making cut-flower designs. He explained that this gentleman had kindly come from New York to give the convention an illustration of what he could do in floral work within a specified time.

Mr. A. LE MOULT here came forward, and was introduced by the Chair as a gentleman devoted to his profession and a prince among floral artists. He stated that he would accompany his work of making up floral designs in the most effective manner with suggestions for the development of the best taste, and would show how quickly, with plenty of flowers on hand, an order could be filled.

[NOTE BY THE SECRETARY.—The exhibition here began with the receipt by Mr. Le Moutt, through an imaginary telephone, of an order for an entirely new and original table decoration, to be presented to the Society of American Florists, and to be ready for delivery at the expiration of one hour and a half from the receipt of the order. With a force of assistants on the stage and an abundance of fresh flowers, supplied by the Philadelphia florists, the work of preparing the design—a wheel of fortune—was instantly begun. Producing a wheel made from plain lumber, the floral work was executed skillfully in exactly one hour and twenty minutes. The design was three feet in height, and was surmounted by a cornucopia, with wings on each side of it. Resting on a large base of ferns, smilax, and tropical plants, was an anchor attached to the design by a chain, (indicating

hope for the profession.) Later in the day, the "wheel of fortune" was presented to Mr. George W. Childs, of Philadelphia, at his country-seat at "Wootton."]

Mr. LE MOULT also exhibited a floral design of a lion, (full-size,) which he said was intended to represent the retiring President, Mr. Thorpe. He remarked: "I had in mind the making of a floral portrait of Mr. Thorpe, but found I could not bring his features out correctly, and, as he is 'the lion of the hour,' this design may be taken as a representation of him."

Seven additional designs were presented, these representing a full-sized pony, the yacht *Galatea*, the steamer *Amerique*, a train-man's lantern, a scroll containing names of deceased members, viz: W. T. Bennett, H. J. Sackersdorff, and J. Y. Murkland, and a miniature gondola, (much in demand for children's parties in New York.)

Mr. LE MOULT made remarks, at different times, as follows: "That, in executing an elaborate piece of work at short notice, it was most essential for the florist to have confidence in the ability and fidelity of his assistants; that ordinarily he did not come in contact with the flower-growers, as he dealt with the commission men; that, as a rule, the florists who had achieved success were those who had been educated in the profession and possessed a natural affinity for flowers."

At this point, the exhibition closed with a round of applause.

SECOND DAY—AFTERNOON.

WOOTTON, MONTGOMERY COUNTY, PA.

Having accepted the invitation of Mr. GEORGE W. CHILDS, of Philadelphia, to visit him at his country-seat, the members of the Society, many of whom were accompanied by their wives or others of their families, arrived here by rail to Bryn Mawr, and thence by teams or on foot. After leisurely strolling through the farmer's cottage, the circular spring-house, the green-houses, and making a circuit of the extensive grounds surrounding Mr. Childs' mansion, the visitors finally sought shelter from the heat of the sun in the grove on the premises. In this delightful place, the visitors partook of a collation and were entertained with vocal music by the "Keystone Male Quartette." Finally the notes of a cornet commanded attention, when the following formalities took place:

Mr. THOMAS MEEHAN, editor of the *Gardeners' Monthly*, Philadelphia, mounting a rustic bench at the foot of an oak, welcomed the visitors as follows:

Ladies and Gentlemen of the Society of American Florists, and of the Florists' Club of Philadelphia: I have had the honor placed upon me by my friend, Mr. Childs, of tendering you his sincere thanks for your presence here this afternoon, and his cordial welcome to these grounds; I would say, if I did not feel that I was speaking in a measure for him—and I am sure you would pardon me for saying it—these beautiful grounds. It is his wish that you make yourselves here entirely at home. He believes that his fellow-citizens have endeavored to make your stay as pleasant and comfortable to you as possible, and that, when you return to your homes, you will take with you pleasurable recollections of what you have seen and experienced here; and he hopes that, in the distant future, when looking back upon your visit to Philadelphia, you will not forget the pleasant afternoon you spent with him here on these grounds.

Ladies and gentlemen, it seems to have been a happy thought which suggested to you to hold your meeting in Philadelphia on this the second anniversary of the birth of your association; for it has been found by experience that horticulture in connection with Philadelphia auspices has always been a permanent success. Your meeting here, therefore, may be considered as an augury of a long-continued career of prosperity. You may remember that the first botanic garden in the United States that was established by an American, was established in Philadelphia by John Bartram; that the oldest horticultural society in the United States is still in existence in this city; and that (although, perhaps, in making this statement I may be charged with a lack of modesty) the oldest existing horticultural journal in the United States is published in this city; so that I may feel safe in saying that your having met in this "city of brotherly love" is a happy augury of the permanent success of your organization.

I may further observe, in connection with that phrase "brotherly love," that it does seem that the old adage that "two of a trade cannot agree" is not correct so far as it applies to florists; for they have always, in a measure, had cause to realize that fraternal feeling and brotherly love are intimately associated with the cultivation of flowers. So far as Philadelphia itself is concerned, I am satisfied that no small share of the pleasure which its citizens enjoy is derived from the general and widespread love of flowers and gardening which prevails everywhere about this city. It is eminently appropriate, therefore, that our citizens, who have found so much pleasure and relaxation in horticultural pursuits, should welcome the members of the Society of American Florists, who have done so much throughout the

United States to foster a love for the art of gardening and the culture of flowers. I can safely say, for the proprietor of these beautiful grounds, that he, at least, has derived no inconsiderable comfort and happiness from gardening and kindred pursuits; and the grounds which you see around you furnish abundant illustrations of his high appreciation of the art which it is your good fortune to cherish and promote. These magnificent grounds were, but a few years ago, woods and cornfields; but, by recourse to your art, and with the aid of brains and money, the face of nature has been gradually improved until it presents the beautiful garden which you behold to-day. We have with us, this afternoon, the landscape gardener, Mr. Miller, by whom Wootton was laid out, and, if time and opportunity permitted, he would be glad, I have no doubt, to give you some description of the way in which this labor and money were expended. I have merely referred to this, however, to impress more forcibly upon you an idea of the extent to which the proprietor of these grounds is indebted to the art in the pursuit of which you are engaged.

As I have said, the sentiment of brotherly love is one that is indissolubly interwoven with the florist's art. I do not know of any trade or profession in which so much of good feeling exists between the members of it as that of the florists. It has not, however, if classical history tells the truth, always been thus; and, while on that subject, permit me to recall a fable which may be familiar to some of you. It may have been a myth, but I refer to it because it will illustrate the origin of this feeling of brotherly love which pervades all followers of horticultural pursuits. Though descriptive of what is said to have occurred two or three thousand years ago, the lesson which it inculcates is, nevertheless, just as fresh as it would be if that which is described had occurred to-day. The story runs that the first person to engage in putting up flowers was a young lady named Glyzera, the daughter of a Grecian citizen. I suppose she was handsome—for all ladies who put up flowers are accorded to be handsome! She made garlands and wreaths, and the Grecians saw how handsome was her work, and competed with each other for the honor of placing on the heads of their heroes in the Parthian games the garlands made by Glyzera. Finally, there came along a young man from Byzantium (now Constantinople) who thought that he could do anything that he tried to do—no doubt a father of the modern Yankee!—and, not having the gallantry of a modern florist, he undertook to start business against Glyzera. He succeeded in carrying on the business of making wreaths to so great an extent that he got, at least, the poets' trade, who found that the work put up by the new comer, Lychnis, was superior to the

work put up by Glyzera. The result was that Glyzera became jealous. This ought to cast doubt on the truth of the story; I do not believe that, for I do not think that the ladies who go into the business of arranging flowers do get jealous! But that is the way the story goes. We are told that Glyzera had a lover, (Satyrion,) to whom she intimated that her competitor was a pretty bad sort of a fellow, and ought to be put out of the way; and her lover, taking the hint more seriously than was intended, murdered the unsuspecting Lychnis. The poets, so the story goes, felt very much annoyed that one who had succeeded in business and had treated them well should be disposed of in such a summary manner, and they appealed to Apollo to punish the lady who had been the means of the young man's destruction. What did the gods do? They turned Lychnis into a flower. The story goes that the "florist's pink," a beautiful carnation, sprang up from his blood right on the place where the young man fell. Glyzera was to be punished by being compelled to use the carnation in her garlands. The carnation, with its fragrance and its sweetness, became a competitor of the rose, and forever afterwards Glyzera was doomed to learn to love, through this flower, the one she had despised—to learn the lesson of brotherly love—by taking her former competitor as one of the essential ingredients in forming her garlands of flowers. So that, it seems to me, the reason why fraternal feeling is always noticeable among florists may be from the will of the gods, who would not countenance ill-will. But this is not the time to go into reasons as to why we are so friendly together; the fact is enough. The reference to brotherly love caused me to think of the old story. I have now only to repeat, on behalf of the owner of these grounds, that I hope, in the future, when you come to think of the pleasures you have had in your intercourse with the citizens of Philadelphia, and in connection with Philadelphia gardening, not the least among the bright spots in the retrospect of pleasure will be your visit to these beautiful grounds to-day.

Mr. JAMES HENDRICK, of Albany, New York, responded on behalf of the guests. He said:

Mr. Childs: I appear before you, sir, to thank you from the bottom of my heart for the kindness with which you have received us this day, and to assure you of our sincere appreciation of your hospitality in inviting us to be present on these grounds.

It was the royal prophet of a peculiar people who cried out with his prophetic voice and repeated in ecstasies of joy, "Unto us a child is born—unto us a son is given." May I not, without irreverence, on behalf of the American Florists, exclaim to-day, "Unto us a CHILD

is born," and his name is George William? Am I not right in thinking that this "Child" has so grown that his name and his fame have become household words, not only in Bryn Mawr and in Philadelphia, but in all the United States? Am I not right in saying that wherever poverty was present he never closed his hand? Am I not right in declaring that when victory perched upon the banners of the great captain of our armies, there was no man in the United States so near to him as was George W. Childs? [Three rounds of cheers for Mr. Childs were here given with great cordiality.] Am I not right in asserting that when a gloomy cloud appeared upon the horizon of that great captain's life and he seemed appalled under the load imposed upon him, and when false friends sought to pull him down, George W. Childs assured him, "I am here at your back?" [Applause.] Then, gentlemen, if I am right in my thoughts and utterances, it follows that you are to-day associated with a man whose personal record is as honorable as that of any man whom I can name. ["Our next President" and long-continued cheers.]

Whether he be President or not, he lives in the esteem of every patriot, he lives in the affection of every good-minded man in the community. [Applause.]

Let me say to you, Mr. Childs, that you have done well in extending your invitation to the American florists. We belong, sir, to a very ancient tribe. My good friend there (Mr. Meehan) spoke about the woman who made the first garland. Does he not know that the only business on this earth which is of Divine origin is that which God created when He commissioned man to superintend the garden which He Himself had planted? Does he not remember that we, as earth's artists, had been commissioned by God for His own work, and that we were not to beautify the lily, nor to paint the rose, nor to tint nature with unnatural crimson, but that, having given us brains, He works through us and makes this garden of ours like a paradise?

My friends, if I am right in the few remarks I have made, we are entitled to feel that this gentleman, in the hospitality he has extended to us, has by his association with us made us better men. In going hence from Wootton, this place at one time a corn-field, but now so beautified by art that it presents a scene of beauty which, in my judgment, is unequalled, let us go from it pledging ourselves and pledging each other that we shall be better men and better women and better citizens, and have a more friendly regard for our entire race. Gentlemen, on your behalf I have said these few words. Here is the man (indicating Mr. Childs) to whom your thanks are due. His spokesman has spoken well. Let us wish that our host, when his work is done, when

the earth is vanishing from his sight, when he is called up before that great, high throne, the welcome will be given him, "Here is the Child who has been a source of great comfort and blessing to many a man." [The speaker here retired amid a chorus of cheers, which seemed to rustle the leaves of the trees overhead.]

Mr. MEEHAN here announced: *Ladies and Gentlemen:* Mr. Childs, overwhelmed by the cordiality of your greeting, desires me to say that he will be pleased to shake hands with you, if you will pass by him in this direction. I hope you will accord him that gratification.

A RECEPTION.

At this point, the visitors filed along the pathway, and each in turn grasped the extended hand of Mr. Childs, being introduced by the Secretary of the Society, Mr. E. G. Hill, of Indiana, and Mr. William F. Dreer, of the reception committee of the Philadelphia Florists' Club. The hand-shaking and reception formalities continued for thirty minutes; after which, when Mr. Childs and a portion of the guests had retired, impromptu remarks were made by Col. Fitzgerald and John W. Frazier, Esq., of Philadelphia, who concurred in suggesting the propriety of naming a new flower in honor of the host, the "George W. Childs."

The hour was now so late that the formal speaking here terminated. On their way to the exits from the grounds, the visitors paused on the terrace in front of the mansion of Mr. Childs, and were photographed in a group. With expressions of good-will and rounds of hearty cheers for their generous host, the assemblage, after having spent a most enjoyable afternoon, made its way to the waiting trains and returned to the city.

SECOND DAY—EVENING.

HORTICULTURAL HALL, PHILADELPHIA,
Friday, August 20, 1886.

The convention re-assembled at a quarter to nine, p. m., when a recess of fifteen minutes was taken to permit members to examine exhibits in the lower hall.

The session was resumed at nine o'clock, p. m., President Craig in the chair.

The PRESIDENT announced as the first business the presentation of a report on hail insurance by Mr. J. H. Taylor, of Bayside, New York, the secretary of the committee on that subject.

Mr. J. H. TAYLOR came forward and read the report prepared by him. It was received with much interest. It is as follows:

Ladies and Gentlemen: The following work has been accomplished by your committee during the year :

Immediately after the adjournment of the Society meeting at Dayton, a meeting of the Committee on Hail was held, and Mr. John N. May was elected chairman. It was then decided by your committee to see what rates, if any, could be had from the already existing insurance companies, and, failing in this, to submit to you some plan for mutual protection. Your committee proceeded at once to place the matter before the insurance companies. Presidents and agents were interviewed, and in New York it was placed before the board of underwriters.

We were informed that nothing could be done in the matter, unless exact data were furnished, that they might judge whether it would pay them or not to touch it.

As it would involve a large expenditure of money to issue circulars to all owners of glass in this country, the matter was submitted to the Executive Committee of the Society, at Philadelphia, in November. It was there decided by the Executive Committee that the Society would not be warranted, at the present stage, to spend the amount of money required for that purpose. Mr. Vaughan, however, generously offered the medium of his paper, calling on all those interested to notify us as to what they would do in the matter. We thus hoped to get the desired information, but the result obtained was very discouraging. It is as follows :

| | |
|----------------------------------------------|---------|
| Total number of replies received, | 26 |
| Total number wanting insurance, | 25 |
| Total number replying in negative, | 1 |
| Total number of square feet given, | 46,330 |
| Total amount of insurance wanted, | \$9,580 |

Only three did not give the amount they wished to insure for, and four did not mention the number of square feet they owned.

This, of course, is a very incomplete report, and it would be impossible to base any calculations on it. The best result so far obtained in giving us some idea of the matter was in Cincinnati, on the train to Dayton, by Mr. F. R. Pierson, of Tarrytown, N. Y., who went through the train submitting the following question :

“That if a satisfactory arrangement could be made with an insurance company already established, would you insure ?”

He received fifty-two replies, which were as follows :

| | |
|-----------------------------------------------------------|----------------|
| Answered in the affirmative, | 36 |
| Answered in the negative, | 16 |
| Total number of square feet in the affirmative, | 675,200 |
| Total number of square feet in the negative, | 521,000 |
| Difference in favor of insurance, | <u>154,200</u> |

This shows that most of the large establishments are willing to take their own risk, and that the smaller favor insurance against hail. Our chairman has called four general meetings, besides personal work having been done by all the members of the committee.

The results obtained would tend to show that a mutual association might be

successfully formed, and secondly, that nothing can be done at present with the insurance companies already established.

We, therefore, not having been able to accomplish anything with insurance men, submit to you a plan for a mutual protective association.

The CHAIRMAN: You have heard the report of the Secretary. If there is no objection, it will be filed as received, and entered on the minutes.

An additional report from the chairman of the committee, Mr. May, will now be submitted by that gentleman.

Mr. JOHN N. MAY, of Summit, N. J., upon coming forward, said:

Ladies and Gentlemen: I hold in my hand a statement of a plan of hail insurance which, I think, as far as I have been able to study it, is about the most feasible that I have been able to get at—assuming that it will contain some few alterations and corrections which have occurred to me. It is the plan of Mr. John G. Esler, of Saddle River, N. J. I will read it just as I received it from him, and then afterwards read the additions and alterations which I suggest.

Mr. MAY here read two papers, the first of which was the plan submitted by Mr. Esler. The other, under the head of "Hail Insurance," contained the alterations, etc., of Mr. Esler's plan which were suggested by Mr. MAY.

(NOTE.—Attached to the papers were communications from Mr. Lothrop White, from *The American Architect and Building News*, from a report by the Fargo Insurance Company, of Fargo, Dakota.) The papers as submitted are as follows:

MR. JOHN G. ESLER'S PLAN.

SADDLE RIVER, N. J., August, 1886.

Mr. J. N. MAY.

SIR: In reply to yours, I respectfully submit to the Hail Committee of the Society of American Florists the following plan of mutual hail insurance:

RESOLVED. That a mutual hail insurance company be organized, to be known as the FLORISTS' NATIONAL HAIL INSURANCE COMPANY. The officers of such company to be a president, vice president, secretary, and treasurer; also a board of directors of not less than five, to be chosen each year by general election.

Duties of Officers.—The president shall preside over all meetings of the company, or its officers, and he shall inspect the yearly accounts of the secretary and treasurer.

The vice president shall perform the duties of the president in his absence.

The secretary shall record the name of each member in a book provided for the purpose, together with the number of square feet of glass insured by each, and the amount paid the treasurer for such insurance, and also in case of loss, he shall record the number of square feet of glass broken, and the amount of loss paid, together with the date of the payment of the claim, and, if correct, he shall countersign properly filed claims for loss, before mailing them to the treasurer, and he shall have power to investigate concerning any proof of loss which

he may suspect to be fraudulent, at the expense of the company. The secretary shall also notify each member when an assessment is levied, and at the annual meeting he shall report to the president the number of members in the company, the number of square feet of glass insured, the amount received by the treasurer for such insurance, the number of losses by hail, the quantity of glass destroyed, and the amount paid for such losses. He shall also furnish blanks for the proof of loss, and all other blanks that may be necessary to prosecute the business of the company. The secretary shall file all applications for membership in his office.

The treasurer shall have charge of the funds of the company, and shall acknowledge the receipt of money forwarded by members, and shall report to the secretary the name of each member, the number of feet of glass insured by each, and the amount of money received from each member; and he shall pay from the funds in his hands such losses as shall be properly proved and filed with the secretary, after such proof has been countersigned and recorded by that official. The proof of loss shall be filed by the treasurer as a record. He shall also render an annual report to the president and board of directors, at the yearly meeting of the company. He shall also notify the secretary when an assessment is necessary, and shall pay to the secretary every three months the dues which he has collected for that official.

Meetings.—The officers of the company shall hold a yearly meeting at the same time and place as the meeting of the Society of American Florists, at which meeting the secretary and treasurer shall render their annual reports to the president.

The officers of the company, at their yearly meeting, shall have power to propose changes of the by-laws, to be reported to the annual meeting of the members of the company, which meeting shall be held at the same time and place as the meeting of the Society of American Florists.

Membership.—Application for a membership shall be accompanied by a diagram showing the length and width of houses, and giving length of sash in each house, and specifying the number of square feet of glass to be insured. Any person paying the sum of one dollar (\$1.00) may become a member of the Florists' National Hail Insurance Company, together with twenty-five (25) cents as a fee to the secretary for recording his name and filing application; but to receive benefit for loss by hail, each member shall pay one dollar (\$1.00) for every one thousand (1,000) square feet of glass, or fraction thereof, in his green-houses, (or, if this is thought too high a rate, being the rate of two per cent. per year, I propose a rate of one per cent. per year for actual value insured,) and for every square foot of glass broken by hail, he shall receive the sum of five cents; or, if double-thick glass, at the rate which he is insured for; and to retain membership shall pay whatever assessment is requisite *pro rata* with all other policyholders, to keep the reserve fund at one thousand dollars (\$1,000) in the treasurer's hands.

Proof of Loss.—Within ten days after a loss by hail, the secretary must be notified of such loss, and claim for damages must be filed with that officer within thirty days after such loss. The proof of loss shall be by his own affidavit, and that of two disinterested persons not in the employ of the loser, to be sworn to before a notary public or a justice of the peace, and if taken by the latter officer, then the certificate of the county clerk of the county in which he resides shall be appended.

No damages shall be paid for glass destroyed by elements other than hail.

The treasurer shall pay all claims for loss within ten days after the secretary shall send him a properly filed claim of damages, countersigned as being correct.

Assessments.—Whenever the sum in the hands of the treasurer shall have been reduced by payment of losses to the sum of one thousand dollars, (\$1,000) he shall notify the secretary, and that official shall levy an assessment of one dollar (\$1.00) per thousand square feet of glass, or fraction thereof, upon each member of the company.

Any person who shall fail to pay his assessment within the space of ninety days after notice thereof has been mailed by the secretary, shall lose his membership in the company, and receive no further benefits therefrom.

Term of Officers.—Officers shall be elected for three years, and shall be elected at the annual meeting of the company when their term of office expires.

Salaries of Officers.—The president and vice president shall receive three dollars (\$3.00) per day for each day's service in the employ of the company.

The secretary shall receive the sum of twenty-five (25) cents for the recording of each member's name and application, and twenty-five (25) cents for recording each proof of loss; also twenty-five cents for making record of the payment of each assessment.

The treasurer shall receive the sum of thirty dollars (\$30.00) yearly, in lieu of expenses for postage, and shall be entitled to the use of the money in his hands, subject to call whenever loss is properly proved.

Bonds.—The treasurer, upon taking office, shall place in the hands of the president a bond for five thousand dollars, (\$5,000) signed by at least two responsible sureties besides himself, and properly executed before a notary public or a justice of the peace.

Expenses.—Necessary expenses, such as printing of blanks, etc., shall be paid from the funds in the hands of the treasurer; but postage shall be paid by the officers themselves, and not allowed from funds in the hands of the treasurer.

Miscellaneous.—The annual report of the secretary and treasurer shall be published in the *American Florist* within sixty days after being rendered.

The reserve fund in the hands of the treasurer shall be limited to one thousand dollars (\$1,000).

The above is offered by Mr. John G. Esler for the consideration of this committee, and, in the main, I think is practical, but I offer for consideration the following:

That in consideration of the great difference in the value of one man's glass over another, *i. e.*, one man may have double-thick French glass, which cost him seven or eight cents per foot, and another man have only single-thick American, costing about half that price; and whereas such single-thick glass is so much more likely to breakage from hail than double-thick, I consider that a higher rate of insurance of one third or one half of one per cent. be charged for insuring single-thick glass than for double-thick, or possibly it may be found requisite to charge double rate; and whereas single-thick glass costs about four and a half to five cents a foot, parties wishing to insure, and having only single-thick glass to insure, shall, on making application for insurance, distinctly state the size and thickness of such glass they wish to insure, and shall be charged the *pro rata* advance for insuring such as may be single-thick only.

As an example, suppose a man having twenty thousand feet of glass, all double-thick, which cost him seven cents per foot. If, on careful consideration, it is found necessary to charge that man at the rate of one per cent. per year for insurance, such insurance would cost him fourteen dollars per year.

Now, another man having twenty thousand feet of glass, all single-thick, which cost him not over five cents per foot, if charged at the same rate of one per cent. per year, would only have to pay ten dollars per year for insurance, and, at the same time, would be much more likely to suffer from hail than the man having double-thick glass, which appears to be wholly unjust to the man having double-thick glass. To regulate this difference, some extra charge should be made to the man having single-thick glass, which, if he be charged one and one third of one per cent. on twenty thousand feet of single-thick glass, would make his insurance thirteen dollars and thirty-three cents per year; or if at one and one half per cent., it would be fifteen dollars per year.

In Mr. Esler's plan just read, he proposed a fee or assessment of one dollar for every one thousand square feet of glass or fraction thereof. This appears to me to be too high a rate, being at the rate of two per cent. per annum. And, furthermore, I think that only actual amount of glass should be paid for. A man having two thousand one hundred feet should not be charged for three thousand feet, but only for two thousand one hundred insurance. or, if at the rate of one per cent., he should pay two dollars and ten cents actual insurance.

If the one per cent. here recommended on actual trial is not found sufficient to cover all claims for the year, an assessment on all insured in the company at *pro rata* sufficient to cover all losses could be made, such assessment to be not more than ten per cent. above the actual amount required to settle all claims and provide for a reserve fund of one thousand dollars (\$1,000).

COMMUNICATIONS RECEIVED.

FARMINGHAM, MASS., Aug. 6, 1886.

Mr. J. N. MAY,

Dear Sir: I inclose copy of an article from the *Architect and Builder*, which I think will interest you and the convention at Philadelphia. I sent a copy to the *American Florist*, but the editor did not print it, finding it, perhaps, a little too interesting for his side of the question. A fatal objection to the proposed hail insurance association is that its members are called upon to take risks without its members being paid for doing so; which is not business, but charity. In fire insurance, those who do the insuring are paid for doing it, and in mutual companies that payment takes the form of reduced premiums. In order to justify the existence of a mutual hail insurance company, it would be necessary to guarantee a rebate to all insuring, which would reduce their premiums below the amount they would pay to an outside company, which is manifestly impossible. On the contrary, if the experience of the past is of any value, instead of reduced premiums there would be heavy assessments.

You will observe in the inclosed article that the very thing occurred to which you allude in the second point of your article in the *Florist*, a point which the editor seems to have misunderstood. There can be no analogy between hail insurance and fire insurance; in the latter, insurance is universal, and the great majority of insurers never have lost and never will lose; in the former case, there are large districts which hail seldom visits, and then but lightly, and from those districts but few premiums will come. Most of the insuring will be done by men who have already lost and are likely to lose again, and every one of whom expects, sooner or later, to draw out more money than he pays in.

Such an association is bankrupt in principal before it begins work, and will be bankrupt in fact soon after. If thoroughly organized and equipped insurance companies, with an agent located in nearly every town in the country, cannot afford to insure us, it is certain that we cannot afford to insure ourselves. If hail fell as regularly as fire occurred, and with the same even distribution, insurance would be a simple matter, and there would be plenty of companies now in successful operation; but, as it is, hail insurance is as impossible as fire insurance would be if such calamities as the Boston and Chicago fires were sure to visit us at frequent intervals.

It seems to me that the only way to deal with the question is to form a mutual aid society, modeled upon those great charities which play such a useful part among the various guilds. All contributions to be funded and interest only applied to the relief of sufferers. In course of time, this fund would become large, and might accomplish much good in various directions. I hoped to go to Philadelphia and take part in the discussion of this question, but can't go, so I venture to send you my opinion, which would be of no value alone, but is supported by nearly all the florists in my neighborhood.

Very truly yours, LOTHROP WIGHT.

From the American Architect and Building News, of May 29, 1886.

A good deal is said just now about insurance against hail, and, notwithstanding the misfortunes of the older hail insurance companies, the florists of the country, who have a very serious interest in the matter, are at the moment engaged in trying to form new ones. Fortunately, perhaps, for the florists who are tempted to enter into mutual obligations of the kind, the *Spectator* has collected some statistics of the history of the hail insurance companies now existing here. Four of these are incorporated in Pennsylvania, and do a considerable business in insuring growing tobacco against loss or injury by hail stones. After from three to six years' experience, the directors of the Pennsylvania companies have concluded that they are doing a losing business. The premiums charged were high, the companies demanding one and one third per cent. in cash and a note for six per cent. on the amount insured, but even these resources were far too small to pay the losses of the last year, in the course of which forty per cent. of the policy holders claimed indemnity to a greater or less amount. The collection of the six per cent. premium note, as might be expected, excited the indignation, if not the positive resistance, of nearly all the policy-holders; while, as the whole amount so collected did not pay one half the losses, the policy-holders who lost property grumbled still more than those who escaped. The net result seems to have been dissatisfaction, repining, and broken contracts all around. Two out of four companies in existence last year have already retired from the business, a third is in process of winding up its affairs, and the managers of the remaining one are deliberating whether they had not better follow the example of their fellows. The fact seems to be that the business of any hail insurance company, particularly a mutual one, is usually confined to so small a territory that every storm afflicting a portion of its territory is likely to cover the whole, and forty per cent. losses are quite as liable to occur as smaller ones. The remedy for this would be to extend operations over a wide field, and equalize the losses in that way, and if to this could be joined regulations analogous to those of the factory mutual fire insurance companies, requiring, for example, that members should use nothing but double-thick glass in their greenhouses, a florists' hail insurance company, at least at such premium rates as those adopted in Pennsylvania, might perhaps be made to pay expenses.

Extract from Fargo Insurance Company, of Fargo, Dakota.

"With many other companies, we last year did some hail insurance in Dakota. Unlike most of the other companies, we have settled and paid most of our hail losses and abandoned hail insurance entirely. In the hail department, we took in sixty thousand dollars in premium notes, and there have been adjusted and paid by the company claims for hail losses amounting to more than fifty thousand dollars. We have now only seven thousand five hundred dollars of unadjusted hail claims, and have still on hand about nine thousand dollars in hail premium notes, secured by chattel mortgages. We expect to adjust and pay all remaining hail claims by mutual agreement, and without recourse to the courts, although some of the companies, like the Continental Fire of New York, have thought that they could secure fairer adjustments by letting claimants sue, and having the courts fix the amount of hail losses, which are certainly very difficult claims to adjust fairly. Thus far the company has adjusted all hail losses without the aid of the courts, and we trust that no law-suit will ever be necessary."

Mr. MAY: I am reminded of your inquiries in regard to hail, on reading the above, and so send it.

Truly yours,

RACINE, WIS.

S. WHITELEY.

In estimating carefully the amount of glass in my own immediate neighborhood in use for commercial purposes, I find that there is about two hundred and ninety thousand feet within a distance of ten miles. Of this amount, there is certainly not more than forty thousand feet that could be depended upon to take policies at a rate of three-fourths of one per cent. per year. This is for my own immediate section; what other sections will do I do not know, but from all I can glean, the feeling is pretty generally against mutual hail insurance.

But, notwithstanding this, if a plan of insurance can be settled upon at this meeting and a joint stock company formed, I am ready to join it by insuring the whole of my glass, (about thirty thousand feet,) and will do all I can to get others to join also.

The proof of the paste is in eating, and it seems to me that the proof of the practical working of this hail insurance business can only be tested by actual experience. I, therefore, advocate a careful consideration of the plans given above and its adoption in some shape or other. If it is a success, some deserving brother of the craft will certainly be benefited by it, and if it should prove a failure, we shall have the satisfaction of knowing that we tried our best, which is all that we can be expected to do.

The PRESIDENT: The convention has heard the report of the chairman of the Hail Insurance Committee. What action does it take thereon?

(No response.)

If there is no objection, the report will be filed, and we will now hear a statement in the nature of a report from another member of the committee, Mr. Pierson.

Mr. F. R. PIERSON, of Tarrytown, New York, (of the committee,) here responded to the call of the Chair as follows:

As a member of the committee, I have given the subject considerable thought from the stand-point of a practical business man, and have found it to be one so complicated and so far removed from the line of our legitimate business as florists, that I was not surprised upon learning that a wide difference of opinion existed, both as to the advisability of creating an organization such as the one proposed, and as to the form which such an organization, if created, should assume. Personally, I am opposed to a purely assessment plan, because I foresee difficulties inherent in the very nature of such a plan, particularly with reference to the responsibility of the company or the readiness with which claims against it may be liquidated, as in cases of heavy losses, possibly no guarantee fund would be at hand to insure immediate payments.

Then there is a question whether, upon any such wild-cat basis, we could operate, with any degree of uniformity or harmony, throughout the country, in view of the special requirements and restrictions peculiar to the laws of individual States, as our organization would neces-

sarily be subject to the regulations of the Insurance Department of the State in which its business is conducted.

The project presents itself in so many different and complex forms that I think it would be advisable to get at the sense of this meeting, as to whether we should entertain the subject at this time. If the response is favorable to it, the details of the scheme could then be considered, item by item, action being first taken as to whether the organization is to be purely that of an assessment company, or an organization providing for the payment of a premium covering, as nearly as possible the payment of a sum more than sufficient to pay all loss arising from hail damage for an entire year.

The plan proposed by Mr. Esler is in very crude shape. Under it we would practically issue what, in fire insurance parlance, would be termed "a valued policy," which is one providing for the payment of a stipulated sum. It would be inequitable for this reason: that an owner of a green-house who had been insured would receive a stated sum, whether his glass was worth five cents per foot or not. To an owner who had been insured for single-thick glass, that would be a blessing rather than anything else. The guarantee should be less, rather than more.

I suggest, as an additional consideration, that an organization such as proposed would devolve upon us an excessive amount of work and extraordinary responsibility. With our lack of experience and the limited facilities at our command, I doubt our capacity to make the undertaking a success, though I do not question the desirableness of it under more favorable auspices. And unless we can have at the outset a reasonable assurance of success it would be better for us not to enter into it.

There is one other feature of the matter, and I allude to it for the two-fold purpose of adding force to my suggestion, that an expression of opinion by the Society at this time is desirable, and of removing any misapprehension as to my motive in making that suggestion. The statement that the florists of this country desire to have an association such as the one here contemplated, has been reiterated from many quarters, and with special emphasis by Western men. I am an Eastern man, and do not want to appear as antagonizing that sentiment if it in fact exists. I want, however, to mention one fact which would seem to disprove the assumption that the interest on the subject has assumed wide-spread proportions among the florists of America. I refer to the sending out of circulars—one of which was sent to every member, I believe—asking that the committee be informed in each instance as to the amount of glass surface exposed, and the amount of

the loss sustained in the breakage of glass by hail. The report of the secretary of the committee, Mr. Taylor, states that the data obtained in that way is very meagre. In the preceding year, we tried to secure the same information by personal appeals, and we would again have had recourse to that means of solicitation if it had been thought that the expense attending the previous effort was warranted by the meagre results then obtained.

I ask whether this showing can be construed to indicate a very earnest desire on the part of the florists of the United States for the establishment of a plan of hail insurance. The more reasonable inference is that there is a deplorable lack of interest in the subject. Talk is cheap! The cost to any one of the gentlemen to whom we applied would not have been more than two cents for furnishing us with the required information, and yet they failed to make any response. At the same time, the data was indispensable if we were to make any progress. An insurance man, with whom I conversed, ridiculed our going into the thing without data as "a wild-cat operation." I know of no men of business ability who would go into a scheme of the character of this one with no guarantee in regard to what it is going to cost them. The plan of paying a premium, which really is the plan of a valued policy, would, in my judgment, run us into debt and bankruptcy in less than six months.

MR. JOHN G. ESLER, of Saddle River, N. J., (yielding to the solicitation of friends around him, who urged their desire to hear him in defense of his plan,) said:

I agree with the gentleman from Tarrytown, New York, (Mr. Pier-son,) that the time is not yet ripe for hail insurance. I do not think the florists have taken sufficient interest in it to warrant the formation of a company at the present time; but I do believe—speaking from the stand-point of one who has had some practical dealings in insurance—that the plan submitted by me is one that will work, and that that fact would be demonstrated if the florists had confidence enough in it to test the plan. I doubt whether they have that confidence.

The single suggestion which I rose to make was this: that it should be borne in mind that hail insurance commends itself, not to all florists indiscriminately, but only to those who want it. Owners of double-thick French glass, supposed to be capable of withstanding the pelting of hail-stones, do not want to insure against hail; and it is useless to create a system which is dependent for its success upon such owners coming into it.

MR. CHARLES ANDERSON, of Flushing, N. Y., moved that, by way of

ascertaining the sense of the Society upon the report of the committee, a vote be now taken upon the question, Shall the present discussion continue?

A delegate suggested that Mr. Anderson's motion was superfluous, as, according to ordinary parliamentary usage, the pending question was upon the acceptance of the report, and the vote thereon would necessarily involve an expression of the sense of the Society upon the subject of hail insurance.

Mr. ANDERSON'S motion was subsequently withdrawn.

The PRESIDENT, (Mr. Craig,) commenting upon the difficulty in the way of a direct expression by the Society upon the question, explained that, owing to the complicated nature of the subject, the Hail Committee had been unable to unite in recommending any specific plan of insurance. The communications from the committee which had been read were, therefore, not committee reports, but simply expressions by members of the committee of the views entertained by them individually.

Mr. D. R. Woods, of New Brighton, Pa., submitted a motion as follows: "That, in the judgment of the delegates present, it is unwise for the Society, at this time, to adopt any plan of hail insurance." He explained that a direct expression by the Society, affirming or negating the proposition, was desirable by way of economizing time and in the interest of a regular and orderly method of procedure. If a majority of those present favored insurance, as he believed they did, the consideration of the details of a plan could then be proceeded with.

Mr. J. C. VAUGHAN, of Chicago: I had not intended to say a single word on this subject, but, having been a member of the former, as I am also of the present, Committee on Hail Insurance, I feel called upon to reply to the criticism of the gentleman from New York, (Mr. Pierson,) upon the failure of the committee to secure sufficient reports in response to their solicitations for information. The subject of hail insurance, when first presented to the Society, was committed to the vice presidents from the various States. Circulars soliciting data upon the topics mentioned therein were sent out by the latter to a large number of florists—in fact, to florists in nearly every State. This work involved a considerable expenditure of time, labor, and money, and, so far as I have knowledge, was carefully performed, except in one case. Having helped to compile the returns which were received, I am consequently in a position to know whereof I speak. Responses were received from two hundred and fifty-six florists, who were mainly people who had suffered from losses by hail. From those who had not met with loss no reports were received, as the under-

standing among the florists appears to have been that in such cases they were not expected to make report. These returns, showing a total of several million feet of glass, were handed to the former committee—I believe they were given to the Secretary, Mr. Taylor.

MR. TAYLOR: Yes, sir; there was quite a large number of them.

MR. VAUGHAN: The one exception in which a report was not received was that of the State of New York, and the cause of this was that the vice president from that State did not turn a pen in the way of attending to his duty in that matter.

MR. PIERSON: I “acknowledge the corn!” [Merriment.]

MR. VAUGHAN: Those of you who were present at Cincinnati, last year, will remember with what persistence I then urged the claims of this subject upon your attention. I then said what I did because I appreciated the fact that some of my customers were illy able to bear the losses to which they had been subjected by hail-storms, and because it was thought by many desirable to adopt some plan for mutual protection. I was forced to take a positive position on the question, because a number of friends and acquaintances came to me in the Grand Hotel, in Cincinnati, and declared: “We have come a long distance to discuss the plan of mutual protection against losses by hail, and if you do not take hold of this matter we will not come again.” Having the interest of this Society at heart, as I still have, I resolved to stand in the breach in behalf of those people, and I can truthfully say that I have faithfully stood there.

Now, after these reports had been carefully gathered from all the States—excepting, as I have said, the State of New York—the present committee found themselves confronted with this condition of affairs, viz: that while the sufferers from hail had responded, stating their actual losses and the amount of glass exposed by them during the period specified, no reports whatever had been received from a large number of owners who had suffered no loss, and who, for this reason, supposed that no report from them was expected. The fact was that the committee needed to have a report from every owner, so that the specific amount of glass owned by each during the year might be shown, as also the fact—if it was a fact—that during the time for which the glass was exposed no loss had occurred. To that extent, therefore, these reports were defective. It is sought to remedy this defect by appeals to these parties through the columns of *The American Florist*. It has been said that, in many issues of the *Florist*, appeals were made for reports, but that few answers were obtained. The fact was that these people had already been furnished with the proper blanks and envelopes to enable them to report, and had reported, and,

their reports being on file with the committee, they could not understand why they should be called upon to make new ones. In some instances, those who were applied to for this information had gone back, in examining their books and compiling data, for a period of twenty years. I would appeal to the gentleman from Chicago (Mr. Hunt) for a corroboration of my assertion.

Mr. HUNT: I have understood the fact to be as the gentleman states it.

Mr. VAUGHAN: The florists who had prepared and forwarded reports to the committee, to the number of two hundred and fifty-six, might, therefore, with entire propriety, ask why they should do the same work over again. This is all that I wanted to say. My purpose was to make more apparent the fact that the subject of hail insurance is one that is not without interest to the florists of America.

Mr. JOHN THORPE: Possibly what I said in my opening address about the first branch being stunted would be applicable here. It seems to me to-night that there is no chance for progress in this matter. I regret much that we have not had a plan presented in such a form that the delegates could accept or reject it. This going over details, such as so much per foot or so much per year or so much per month, seems to me to be of no use. We should have a plan. If we cannot bring a plan to bear, let us reject the whole proposition.

I believe that the third paragraph in our constitution or our platform provides that we should, if possible, present a form of insurance against loss by hail and fire; and I must acknowledge, gentlemen, before you all, that if that paragraph had not been embodied, the Society of American Florists would not be in existence to-day. If hail insurance is an impossibility, let us show the fact in black and white. If it is possible to carry it out, let us have a plan formed, showing that there are so many thousand feet of glass to be insured at so much money, and there's an end to it. Let us have a plan drawn up which we can accept or reject. Let us give the figures and the data, and if we cannot undertake it, let us drop the subject altogether.

Mr. J. H. TAYLOR: It may be inferred from the remarks which have been made that the failure to report some tangible basis for action is the fault of the present committee, and I, therefore, desire to show that any such inference is erroneous. Your committee was appointed last year, at Cincinnati, for the purpose of having submitted to you here some plan by which insurance could be taken hold of, or of finding out whether any insurance company already in existence would insure our green-houses at reasonable rates. We have learned that

the insurance companies will not touch the matter, unless we give them in advance some exact data upon which they can make their calculations. It has been impossible to do that.

The committee has labored faithfully and laboriously, every member of it, individually and as a whole, and we have tried in every way possible to get the insurance companies interested in the project, but found it impossible to do so. In fact, one company that had insured green-house glass sent on a detailed report of their transactions for two years, showing that in that period they had suffered heavy losses, and had, in consequence, decided to go out of the business. Our chairman (Mr. MAY) has presented a detailed report of a plan for the organization of a mutual company—or, in fact, a value company—for your approval; and what we should like now is to know whether you approve of that plan. If you do approve of it, we can discuss it, point by point. I, therefore, think a vote should be taken at once, in order to get the sense of the meeting.

Mr. ESLER here explained that the valuation set forth in his plan was based upon the report made by Mr. Hunt, chairman of the committee, at the last annual meeting. He had taken his data from that report in making the assessment of one dollar per thousand square feet of glass, and the payment of five cents per square foot.

Mr. F. R. PIERSON: The data received in response to the circulars were valueless for this reason: that those florists who reported were only those who had met with losses, and we had no guaranty that all who had met with losses did report. We had no data that were complete, and, therefore, that which we had were worse than none. For that reason I considered it valueless to the committee.

(The pending question being the motion of Mr. Woods, declaring that, in the judgment of the delegates present, it is unwise for this Society to adopt any plan of hail insurance at this time, was here put to a vote and determined in the negative. The discussion then proceeded.)

Mr. E. G. HILL asked President Craig to favor the convention with his opinion on the subject.

(Mr. JOHN N. MAY temporarily assumed the chair.)

Mr. CRAIG responded: The members of the committee differ so widely in their views as to be unable, after all these months, to agree upon a plan; and I do not see how, in the present condition of things, we can do anything in the matter as a Society, except to refer it back to the committee for another twelve months, or ask for the discharge of that committee, and the appointment of another, with the hope of

getting a plan. Until a plan is presented, we can do nothing. In order to dispose of the question, I move that the matter of hail insurance be given up as at this time impracticable.

Mr. D. R. Woods seconded the motion.

Mr. DAVID BEARN, of Philadelphia, suggested the experiment of trying to incorporate a hail insurance company, so that the Society might see how much capital for the purpose it could get. If members of the Society put capital in it, an insurance organization would be secured, and then its workings could be seen.

Mr. J. C. VAUGHAN (to Mr. May): Did I understand that you recommended the plan?

Mr. J. N. MAY: I recommended the plan as modified with my amendments.

Mr. VAUGHAN: I understand then that you, as chairman of the committee on hail insurance of the Society of American Florists, have recommended the plan as proposed to be amended?

Mr. MAY: Certainly.

Mr. VAUGHAN: I think that is satisfactory on that point.

Mr. JAMES HORAN, of Bridgeport, Connecticut, remarked that he thought a large majority of those present favored insurance. He, for one, wanted it. He had been unfortunate enough, about three years ago, to lose about three thousand dollars in damage by hail. He insisted, however, that the motion made by President Craig was substantially identical with the one which had been voted upon and rejected.

The PRESIDENT (after a brief controversy as to the form of the pending question): In order that there may be no further misunderstanding, before we take the vote, I will again state the motion. It is this: "That it is unwise for the delegates to adopt any plan of *live* insurance at this time."

(The error of the Chair in substituting *live* for *hail* insurance here provoked general merriment.)

The PRESIDENT: You know what Emerson has said about the misuse of a word, and he is pretty high authority. He says that the word does not make any difference so long as you have the idea. Now, I had the idea, and so had you all. I do not object to this little fun, because the matter is one over which we are liable to fall into a little ill-humor. Indeed, I am glad, in view of the laugh it raised, that I made the slip of the tongue that I did. Now, that there may be no mistake, I will state that those who favor dropping this whole matter of hail insurance will vote "aye" on the motion, and those who want to have the subject further discussed will vote "no."

Mr. WILLIAM GRAHAM, of Philadelphia, suggested that the vote be taken by the members rising.

The PRESIDENT, acting upon the suggestion, ordered a rising vote; and, this being taken, the result was announced as follows: In the affirmative, 55; in the negative, 67. He then announced that the motion had been negatived, and that the subject was still open for discussion, and invited further remarks.

Mr. A. B. FOWLER, of Exeter, N. H., remarked that two reports had been read—one by the Secretary, Mr. Taylor, and the other by the chairman, Mr. May—and he desired to know which was presented as the report of the committee.

The PRESIDENT replied that the understanding of the Chair was that the committee as a whole did not make a report.

Mr. J. C. VAUGHAN stated that, in response to a direct inquiry on the point, the chairman (Mr. May) had stated that his report was presented by him as chairman of the committee.

Mr. G. L. GRANT, of Chicago: I move that the plan offered by Mr. May, with the suggestions and amendments reported by him, be adopted by this Society.

The motion was seconded.

Mr. A. B. FOWLER reminded the audience that an insurance organization, as proposed, would be obliged to conform to the laws in each State in which it operated, and that, as the insurance laws of the States were dissimilar and at variance with each other, it might be found impossible to put in practical operation a system such as the one proposed by the report. He thought that the adoption of any plan of this kind would be premature.

Mr. F. R. PIERSON called attention to the fact that the question was simply upon approving of, or adopting, the committee's report, and that this action would not commit the Society to the support of the proposed insurance company. So far as concerned the difficulty suggested by Mr. Fowler, his own opinion was that the company could be organized under the laws of any one State, and that its members in other States would receive all the benefits of it. He thought that an organization could be effected in the State of New York, under the mutual benefit laws of 1883, with very little expense. It would not be necessary to organize in every State.

Mr. FOWLER inquired whether it would not be necessary for the company to conform to the special requirements imposed by the laws of certain States before it could do business in those States. Some little trouble in this way had arisen in the State of New Hampshire,

and he had been informed that these exceptional provisions of law existed in Massachusetts, Pennsylvania, and other States.

Mr. PIERSON replied that the proposition was not that the company should do business in every State, but only in the State in which its organization was effected. He explained that the life insurance company of which he was a member organized under the law of the State of New York, included in its membership, and among those receiving its benefits, citizens of many other States.

Mr. E. G. HILL coincided with Mr. Pierson in the view just expressed. He thought that if the company did not establish agencies in States other than the one in which it was organized, it would not be subjected to any difficulty because of the restrictions of the insurance laws of other States. He stated further that he desired to enunciate more fully the view suggested by Mr. Thorpe. He agreed with that gentleman that, when the Society of American Florists was organized, the idea was that it should originate and carry forward some plan of mutual insurance for the protection of its members against loss by hail. He desired it now to be understood that it was entirely optional with each member to go into or stay out of the proposed organization. He failed to see, however, that any advantage was to be gained by withholding assistance from, or by placing obstacles in the way of, those who desired to have such an organization. (Applause.) He had given the subject some little thought, and it appeared to him that the committee had pulled together in every direction but the right one. He believed they should have made more strenuous efforts to reconcile differences as to details with a view to presenting at the present meeting some plan upon which action could be taken. The supposed difficulty of operating in different States, under the varying conditions of the laws of each, had been suggested to the committee at the meeting in Cincinnati, and that point was emphasized at the time, with the expectation that the committee would inquire into and report upon that feature of the subject so that action could be taken intelligently at this time. Mr. Thorpe, with his great benevolent heart, taking in the opinions and needs of everybody, had correctly stated the position of the matter, and the spirit which he had shown was one which others should seek to emulate, so that all the delegates might be enabled, leaving aside petty differences as to details, to unite in support of a practical and earnest experiment. If it was found that such an experiment could not succeed, the whole matter could then be dropped.

Mr. D. R. Woods, of New Brighton, Pa., remarked that he thought he fairly expressed the sentiment of a majority of those present when he declared that in voting down the motion which had been made,

they did not wish to be understood as opposing hail insurance. The point was this: that, in their judgment, it was not advisable for the society to adopt the insurance plan as a society. They evidently thought that, while it might be wise for the florists of America to adopt a plan of hail insurance, it was not prudent for the society to do it, because the florists of America and the Society of American Florists were not identical. For one, Mr. Woods said, he was opposed to the Society forming a company such as proposed. As individuals, the members could do as they pleased, but as a society, they should make haste slowly.

Referring to parliamentary law and usage, Mr. Woods argued that the effect of a motion to adopt, rather than merely to accept, the report of a committee, would bind the Society to carry out whatever the report proposed. Hence the adoption of the insurance plan reported by the committee would pledge the society to push the matter, and would imply that every delegate present was to become a member of the insurance company.

The PRESIDENT combated the position taken by Mr. Woods. He said he thought that the gentleman was laboring under a misapprehension; that, in the opinion of the Chair, the adoption of the report from the committee would not obligate the members of the Society to do anything, but would leave them free to join the insurance company or to stay out of it, as there was no compulsion. He added that, if in error, he would be glad to be corrected.

Mr. J. H. McFARLAND of Harrisburg, Pa., here submitted, as a point of order, that, the report having been received, the pending question was the motion of Mr. Grant.

The PRESIDENT decided the point well taken.

Mr. JOHN THORPE asked to say a few words before the question was decided. He explained that, some twenty years ago, the growers on the eastern and northern shores of England suffered considerably from hail, while around London, (which he likened to the city of New York at the present day, in respect to the attitude of its florists on the question,) no concern was felt about it, as hail storms were almost unknown there. Some six or eight years ago, he read an account of losses from hail at points around London—a hail storm of great severity having occurred there, and the destruction caused by it being so great, that the creation of a fund was made necessary for the relief of the sufferers, and to aid in reestablishing them in business. Mr. Thorpe went on to say that there was no question in his mind about "the hail bill." The hail bill was to be seen wherever hail came, and not where it did not come. When the hail comes along in the West,

in Iowa, or Dakota, or away out on the plains, where there are not so many green-houses, its visits are not long remembered; but if hail storms should come around Union Hill, Jersey City, and College Point, where green-houses are as thick as bees in summer time, the losses would be terrible, and the sufferers would be the loudest in demanding some means of protection thereafter. It should be remembered that destruction from hail, unlike loss by fire, could not be guarded against and provided for. The question seemed to the speaker to be a serious one. He said that if the effort to formulate a plan should fail altogether, some means for rendering mutual assistance in emergencies should be provided voluntarily. If the men in the business in the West were stricken down by their losses, their Eastern brethren should help them, and the former, in their turn, should reciprocate when florists in the East became the sufferers.

Mr. PETER HENDERSON said he did not believe that a single one of the florists present would hesitate to insure against loss by hail if any practical method for doing it could be devised. He had understood that the purpose in sending out the blank circulars was to acquire the necessary data, so that ordinary insurance companies would have something to estimate on. For himself he could say that, in a period of thirty-seven years, he had not suffered any loss from hail. He had no hope, however, that this Society would ever take hold of the hail question, as a society, in a practical way.

Mr. J. M. JORDAN, of St. Louis, said he did not regard an insurance company and a florists' association as analogous. He thought that the dissimilarity between the two bodies would practically keep them distinct and separate from each other. The Florists' Association associated together all persons interested in the trade whose coöperation would tend to elevate it. Its circle of membership included gentlemen, like the owner of the beautiful place at Wootton, whose natural affinity for flowers attracted them to the Society, practical gardeners, who are employed to raise supplies for the market, and the employés of gardeners. Among the members, therefore, there were many who were not interested in insuring glass, because they own no glass. He believed that the Society, as such, had not the right to identify itself with an insurance organization, except so far as to give its moral support for the encouragement of the individual efforts of deserving members.

He coincided in the view that a hail insurance company, organized under the laws of a particular State, could carry on its business in other States, under the laws of other States. He cited an instance in which a company, organized under the laws of Kentucky, and which

had paid out in losses at the rate of about three millions of dollars a year, did not have its principal offices in Kentucky, but in Missouri, because they thought the latter State a better place in which to do business. The question as to whether they could remove the principal offices from the State, after a bitter contest, had gone to the Supreme Court of Kentucky, and that court had said that the company had a right to do business where it pleased, provided it complied with the laws of Kentucky. The speaker thought that a company organized in Philadelphia could do business in any of the States, but he reiterated that the Society ought not to go further than to say that a company would have its moral support.

Mr. WILLIAM R. SMITH, of Washington, D. C., said he thought there would be no difficulty in procuring a charter in the District of Columbia for a mutual association of the kind proposed. He belonged to a life association there which had been in existence for twenty-five years, and the members of which were scattered throughout the Union. The association could have its headquarters there nominally, if not really, and do business all over the United States. He felt that he could almost guarantee the procurement of a charter there. He did not propose, however, to discuss the feasibility of such an organization.

Mr. M. A. HUNT, of Chicago, said he did not think that the idea of binding the Society to any proposition emanating from the committee would be seriously entertained, but he thought that the members of an organization formed within the Society would be greatly strengthened by the Society giving them its support in the start. It seemed to him now, as it did last year, while reflecting on the matter, that the creation of a fund upon which actual sufferers from loss by hail could draw would prove of great benefit. He had not given the subject sufficient thought to enable him to feel satisfied that such a means of help could be availed of upon strictly business principles, but his thought had been that, for one, he would be willing, if others would join him, to throw in fifty or seventy-five dollars a year for a general fund upon which hail sufferers could draw. This was his feeling to-day. It seemed to him that the committee, instead of simplifying the matter, had moved in the other direction, and that all the imaginary hindrances which seemed to lie in the way of the project had risen up before them.

Mr. G. L. GRANT, of Chicago, expressed the thought that an equitable plan, one that would be satisfactory to everybody, could be arranged and made successful. As both sides of the question had been presented, he now asked for a vote.

MR. WILLIAM GRAHAM, of Philadelphia, inquired of the Chair whether, if the pending motion prevailed, the effect would be to adopt the plan presented by Mr. May, and to require the Society to carry it out.

The PRESIDENT replied in the affirmative.

MR. JOHN G. ESLER, of Saddle River, New Jersey, then moved to amend the motion so as to make it read as follows: "That the Society accepts the report, and directs that a committee be appointed to organize a company, with the understanding that the Society of American Florists will not be liable, financially, because of such organization."

The PRESIDENT remarked that the exemption of the Society from any liability was generally understood, and therefore need not be expressed.

Mr. ESLER here made the statement that the report which had been made by Mr. May provided all the way through for an organization separate from that of the Society.

MR. A. B. FOWLER, of Exeter, New Hampshire, suggested that, as the report of the secretary of the Insurance Committee was first submitted, it was entitled to precedence over the other report, and that action should be had upon it before the plan of the chairman of the committee was taken up.

The PRESIDENT replied that the plan submitted by Mr. May was the one now under consideration.

The PRESIDENT (after conferring with the author of the original motion, who had accepted the amendment as a modification of his motion) stated the question upon the pending motion as follows:

"That the plan reported by Mr. May be received, and that a committee be appointed, with instructions to organize a company."

A vote being here taken, this motion was adopted.

On motion of Mr. J. G. Esler, the present committee on Hail Insurance was discharged with the thanks of the Society.

MR. WILLIAM GRAHAM, of Philadelphia: I move that Mr. George W. Childs be elected an honorary member of the Society of American Florists.

The motion was carried by a unanimous vote.

On motion of Henry A. Siebrecht, of New Rochelle, New York, moved the offer of a vote of thanks to Mr. George W. Childs for his kind hospitality upon the occasion of the visit of the Society to that gentleman's country-seat this afternoon.

MR. D. R. WOODS, of New Brighton, Pa., suggested the appointment of a committee of three to draft resolutions of thanks to Mr. Childs and to forward the same to him.

Mr. SIEBRECHT accepted the suggestion.

The motion of Mr. SIEBRECHT, as modified by Mr. Woods' suggestion, was adopted by a unanimous vote.

On motion of Mr. ESLER, the committee to organize the hail insurance company was ordered to consist of five members; and, on motion of Mr. H. M. SMITH, of New York city, the Chair was authorized to appoint the committee at such time as he might think best.

Both motions were adopted without dissent.

Mr. McFARLAND moved a vote of thanks to Mr. James Hendrick, for his response in behalf of the Society at the reception given this day by Mr. George W. Childs.

Adopted unanimously.

On motion of Mr. D. D. L. FARSON, of Philadelphia, it was ordered that a copy of the constitution and by-laws be mailed to each member of the Society.

Adjourned.

THIRD DAY—MORNING.

HORTICULTURAL HALL, PHILADELPHIA,

Saturday, August 21, 1886.

President CRAIG announced the following appointment:

Executive Committee.—JOHN THORPE, Queens, N. Y.; ROBERT J. HALLIDAY, Baltimore; J. M. JORDAN, St. Louis; C. B. WHITNALL, Milwaukee; E. G. HILL, Richmond, Ind.; JOHN N. MAY, Summit, N. J.; H. A. SIEBRECHT, New Rochelle, N. Y.; ALEXANDER MURDOCH, Pittsburgh, Pa., and W. J. STEWART, Boston, Mass.

Also, in accordance with the reports from the various State delegations, the election and appointment of the State vice presidents, a list of whom will be found on page 4.

The PRESIDENT announced that the following had been constituted the committee to organize a hail insurance company, pursuant to the resolution previously adopted:

J. M. JORDAN, St. Louis, chairman; HENRY A. SIEBRECHT, New Rochelle, N. Y.; E. G. HILL, Richmond, Ind.; J. G. ESLER, Saddle River, N. J.; J. C. VAUGHAN, Chicago.

The PRESIDENT announced the following as a Committee on Final Resolutions:

PETER HENDERSON, Jersey City, N. J., chairman; J. H. TAYLOR, Bay-side, N. Y., W. J. STEWART, Boston.

Mr. J. N. MAY: I move the appointment of a committee to consider the advisability of changing the first day of our annual meeting from Wednesday to Tuesday, and of so amending our by-laws as to provide against an interruption of the convention during its business sessions, such as we have had at the present meeting. The point for consideration is whether any interruption shall be permissible while the business of the annual meeting remains undisposed of.

The PRESIDENT: It is evident, from our present experiences, that our local committee, in their kindness of heart, have made a mistake. They were actuated by the best of motives, and would promise not to again err in the same direction, at least not to the extent to which they have erred.

Mr. J. C. VAUGHAN: I had hoped the Chair would not construe the motion as intended to cast any reflection upon any one. No member of this Society—I think I speak for every one of them—would suggest a complaint concerning the manner in which our time has been occupied, in view of what has been done for our pleasure and comfort here. The motion looks only to the future.

The PRESIDENT: The Chair would add one word on the point before dismissing it. He is sure that every one understands that the arrangements by the local committee were made with the best intentions. There is the best of feeling here, but there is a clear conviction that the time appropriated to festivity has been of such length as to interfere with business; and everybody seems to be of opinion that we should attend to business before pleasure next year. I do not think there is any dissatisfaction or fault-finding about it, but there seems to be a decided disposition to attend to business hereafter without delay, and to leave our little pleasure trips until our business is finished.

The motion of Mr. May was adopted by a unanimous vote amid applause.

The PRESIDENT announced, as the next business, an essay on "The Advantages of Hot Water over Steam for Heating Purposes," by J. D. Carmody, Evansville, Indiana.

Mr. CARMODY came forward, and was heartily welcomed. He said: "Before reading my paper on this subject, I wish to state that I claim to be a florist in a small way. The plants that I cultivate are covered by about nine thousand feet of glass. I have been engaged in the business for fifteen years, and the paper which I now submit has been written from a florist's stand-point only."

The essayist here read as follows:

THE ADVANTAGES OF HOT WATER OVER STEAM FOR HEATING PURPOSES.

In advocating hot water as a heating medium in preference to steam, we do not condemn the latter to the extent of calling it a failure, for where all conditions are favorable and proper attention is paid, good results have been achieved. The same may be said of the old brick flue. No doubt there are many florists present who are raising as fine plants and flowers by the aid of its heat as ever bloomed under the aid afforded by the most approved steam or hot water apparatus; but who, for conveniences sake and general results, would not exchange the flue for either steam or hot water?

Before making the change, it is wise to set the two systems in question side by side, turn them inside out, expose every weak point, and exhibit such commendable quality for public inspection, that we may adopt the better method. In order to present the subject under discussion in the most comprehensive manner, we will examine it in detail and introduce to your notice.

1.—LOCATION OF BOILER WITH REGARD TO CONVENIENCE.

Steam, to work well, must have the boiler located low enough for the water line to come below the level of the return pipes in the green-house. This necessitates a pit or cellar in immediate proximity, not less than six or eight feet deep, which can only be constructed at considerable expense; and necessity often compels the location to be inconvenient of access, laborious to supply with coal and in removing the ashes. In many localities such an excavation will at times give a world of trouble from surface water. We have personal knowledge of several such instances.

Hot water circulation is independent of location. It flows as well with the boiler above as below the ground line. No dark pit or subterranean cellar is necessary, in which to generate its radiating current. Convenience only, with regard to location, is consulted.

2.—COMPARATIVE SIZE OF BOILERS.

A steam boiler must be large enough to hold a generous supply of steam, and at the same time water enough to cover the fire-box. This necessitates a bulky mass, difficult to get in place, and often times occupying much valued room.

Hot water boilers are small and compact, requiring little space.

3.—COMPLICATION OF BOILER AND ATTACHMENTS.

Every well-regulated steam boiler is applied with numerous appendages, known as water gauge, steam gauge, safety valve, check valve, draught regulator, damper regulator, injector or supply pump, and every distinct line of pipe in the houses must have an air cock. The use and management of all these necessary adjuncts must be learned by the man in charge, and when the knowledge is attained, he thinks he is entitled to the rank of engineer, and demands corresponding wages.

Hot water boilers have no need of these expensive ornaments, and a cheap hand, with sense enough to throw in coal and pull out ashes, is competent to run the fire.

4.—COST OF BOILER.

A new wrought-iron steam boiler, with all the necessary appliances, will cost from one half more to double the amount required for a hot water boiler to heat a house of a given size.

5.—COST OF PIPES.

Steam pipes (from the high temperature they attain) are much smaller than those used for hot water, and less quantity in length is generally required. They are also laid quicker, but always require experienced labor, with expensive tools, to do the job.

Hot water pipes are generally larger and of cast iron, put together in so simple a manner that cheap labor and inexpensive tools can be employed. But the work is slower and the pipe more expensive, and the result is that steam piping is the cheaper.

6.—TEMPERATURE OF CIRCULATION.

Steam is said to be the product of water heated to a temperature of 212° Fahr. It is true that steam, at atmospheric pressure, registers only 212° of perceptible heat, but to raise steam sufficient to expel the air from the pipes, and fill them with steam, requires 966 of additional units of heat. So steam is really the product of 1,178 of heat; 966 are held in the boiler latent, while only 212° enter into the circulation.

But please notice that it requires just as much fuel to generate the 966 $^{\circ}$ of latent heat, as if it were so many degrees of sensible heat that entered into the circulation. Again, to produce any heat at all, the radiating pipes must register at least 212° to 215° . This temperature, in mild weather, is too high for plant growing, and if steam is turned on or off to regulate the temperature, close attention is demanded, and a waste of fuel is going on in keeping up steam heat in the boiler.

With hot water, as soon as fire is started in the boiler, circulation commences at once, and every unit of heat imparted to the water is sensible, and, entering into the circulation, is transmitted to the atmosphere of the houses. In moderate weather, when a little heat is needed, a steady supply at low temperature is easily maintained, with no waste of fuel, and but little attention to the fire.

7.—COMPARATIVE DURATION OF HEAT WHEN FIRE IS EXHAUSTED.

When the feed water of a steam boiler falls below 212° , circulation ceases. Steam is very volatile, and radiates its heat quickly, and the pipes being small, cool off in a very short time, leaving the houses without heat, though there may be some fire and a large amount of heat in the boiler.

Hot water pipes are generally large, and their contents, when heated to 180° or 200° , retains heat a long time, dispensing it gradually, little by little, as the surrounding atmosphere demands it, continually drawing on the fire and boiler for its last particle of heat, carrying the houses safely through the early morning hours, when winter's fierce breath becomes most penetrating, and the florist finds his warm bed most attractive. We will, in this connection, refer to

8.—THE ATTENTION REQUIRED

by each system to maintain an even temperature of heat.

With steam, the numerous appliances to keep in order about the boiler, the air-cocks in the radiation pipes, (which, if not automatic, must be opened and closed every time steam is raised,) the high temperature necessary to be maintained, the rapidity with which the pipes cool off, require close and constant attention that only a competent, sober, intelligent man can be trusted with. No matter how automatic your regulators are, it is not safe to fill up the fire-box and leave it, especially when soft coal is used. A sudden spurt of the fire is liable to

occur or it may smother out entirely. Too much heat endangers the pipes or boiler, and raises the temperature too high for the plants. Too little fire gives no steam and the pipes are cold, though the feed-water is just ready to boil.

I have the statement of reliable persons, and I know, from my own experience, that it is not safe to leave a steam apparatus on a cold night more than thirty minutes without attention, and little heat will be left in one hour. To make steam economically, a bright, quick fire of flame is best. This is attained by frequent firings with small quantities of fuel, which requires the constant attention of a diligent man.

The proprietor, who has everything at stake, is really the surest man to trust, but are they all willing to lose rest night and day when there is an easier plan in *the hot-water system?*

Here, all that needs attention is the fire, and after the water is hot, a quantity of fuel may be thrown in, and the draught regulated to maintain a slow fire that will last from one to two hours. When the fuel is consumed, we have left the heat of the water as a reserve force, which is good for one or two hours more. Thus you can have a respite of three to four hours, instead of one hour with steam.

Should the fireman of a hot-water system so forget his duty as to raise steam in his own system by an overdose of stimulant, and under its influence fall asleep, or in any other way neglect his trust after the hour of midnight, no damage would be likely to occur; but the plants protected by steam under like circumstances, would hang their heads in sorrow when the morning sun melted away the icy fetters that had crushed out their life.

9.—DURABILITY OF BOILERS.

Steam boilers are generally made of wrought-iron as a safe-guard against accident, while the majority of water-boilers are of cast-iron. Now, if these boilers were kept in constant use, they would be alike durable, but when not in use the wrought-iron will rust out very rapidly, especially where soft coal has been used that contained sulphur. In this case, the flues of a wrought-iron boiler will not last more than three or four years, while a cast-iron boiler is good for many years. I have now a cast boiler in good condition that has been in use for twelve years, while a wrought-boiler I had made as an experiment was useless after the third season.

10.—COST OF FUEL.

The difference between the cost of fuel by the two systems is so little that actual experiments, conducted in the most careful manner, only will tell the amount. To decide this, the same boiler must be used, the same houses heated, with the same man to do the firing in an impartial manner, and the same weather must be met. Until this test is made, A will tell C his steam system used less coal than B's hot-water, and B will tell C how little fuel he used for his hot-water heating, in comparison with A's coal-eating steam works.

11.—HOT-WATER UNDER PRESSURE.

Advocates of steam claim for their system quicker heat and higher temperature than can be had by hot water. This is a mistake.

Give water the same pressure as steam, use small pipes, and hot water possesses the same capacity as steam. The pipes will be just as hot and circulation just as rapid as steam. It, furthermore, has the advantage of circulating at a

lower temperature, and retaining heat for double the time that steam can. For those who desire high temperature, we can recommend this plan as possessing many advantages over steam. We shall be pleased at any time to explain this system more fully to those who are unacquainted with the laws governing high pressure water heat, and desire further information on the subject.

12.—CONDITION OF PLANTS—STEAM *versus* HOT WATER.

Is a high temperature conducive to perfect health and sturdy growth of bedding plants? We say no; and the florist, in spring, will tell you his cold pit sheltered his best plants. Does a high temperature produce the best flowers? We say no; the florist that studies nature and adopts her plans is most successful. Does nature produce her best flowers under the scorching rays of a July sun? Are not her delicate ferns and most luxuriant foliage raised in cool retreats—'neath shading boughs?

Mild, balmy spring brings forth the rose in her beauty, which lingers till summer's fevered breath blasts her loveliness. Then a struggling life she leads till autumn's dewy nights bring refreshing balm that starts anew the stagnated current, and with life renewed, the queen of flowers is seen in all her glory.

This is the lesson nature teaches: Spring and fall are the seasons for flowers. Summer's heat brings the fruit. We are florists, and if we would have flowers, we must maintain in our houses a steady temperature at a medium degree, and avoid sudden changes. This condition every florist knows can better be obtained by large pipes filled with water at a moderate temperature than by small pipes filled with volatile steam at a burning heat, liable in one short hour to become cold as death.

A temperature conducive to man's health is the proper one for plants. The celebrated Dr. Mussey, of Cincinnati, who wrote me last fall in relation to hot-water apparatus for his dwelling-house, says hot-air furnaces and steam heaters can be placed in the same category, and neither are the proper system with which to heat a dwelling. The only proper heat, outside of the old-fashioned wood fire-place, is found in the hot-water system. I have received several letters from florists who now use steam, that express their determination to return to hot water, both for convenience's sake and general results.

In conclusion, we will advise the florists who wish to heat under five thousand feet of glass with one fire, to use hot water with four-inch pipes and an open tank. Those who have more than that quantity to heat with one fire, should use hot water under pressure in two-inch wrought-iron pipes. A little closer attention is required to keep the heat up, but the system is much less confusing than steam.

The PRESIDENT: Before proceeding with the discussion of this question, we will hear from the opposite side of the issue, viz: an essay by Mr. J. H. Taylor, of Bayside, New York, on "The Advantages of Steam over Hot Water for Heating Purposes."

THE ADVANTAGES OF STEAM OVER HOT WATER.

I have been asked to champion steam-heating for green-house purposes, and I shall endeavor to give you a fair and impartial review of the subject from a grower's stand-point, not from the scientist's view, as the space allowed is limited, and the theoretical portion has been most ably treated by Mr. A. B. Fowler,

in a recent article written by him. I shall endeavor to show the working of steam-heating as applied to our purposes, that you may form your own opinions. In order to elucidate my subject more clearly, I shall take it up under different heads.

CAN PLANTS BE GROWN AS WELL BY THE SYSTEM OF STEAM HEAT AS BY THAT OF HOT WATER ?

I answer most decidedly in the affirmative, and go a step further and hold that they can be *better* grown. This is owing to the fact of having the temperature and moisture entirely under control during the winter months. Therefore, the grower using steam to heat his houses has this advantage over the one using hot water, that he is not as dependent on the outside conditions of the atmosphere. Having the heat under such perfect control, it is possible to fire early and late in the fall, and, if necessary, during the summer months. This is highly important to the grower of stove plants as well as of roses. This can be accomplished from the fact that steam-pipes radiate heat immediately upon the steam being turned into them, and cool in fifteen minutes after it has been shut off.

CONVENIENCE OF HANDLING.

Again, only one or more boilers are required in places heated by steam. With very little trouble or expense, it is possible to make a wood or light coal fire and run steam through the green-house, and, when no longer required, it can be shut off immediately. An inch-and-a-quarter pipe with steam at low pressure circulating through it, on a rainy day, will not materially raise the temperature, but will, by leaving a little air on at the ventilators, change the atmosphere, thus preventing all forms of fungi which breed in a warm and muggy one. In this way, also, fumes of sulphur can be given during any season of the year.

Another advantage that steam possesses is that of being able to heat green-houses in the coldest climate to any desired degree. Owing to the requisite size of pipe for hot-water heating, there is a limit to the piping of a house, whereas with steam this is not the case.

COST OF FUEL, ETC.

The next important consideration is that of fuel. I have tried to get some exact data to lay before you bearing on this point, but without much success. An accurate comparison of heating between the establishments of different growers is very difficult to draw, owing to construction, location, aspect, and stock raised. Just what allowance to make for the influence of any of these conditions it is, of course, impossible to estimate, and an absolute comparison of fuel cannot be obtained. I can, however, give you my own experience, which shows a decided saving of fuel between the two systems of heating. Since using steam, we have added seven thousand five hundred square surface feet of glass. Our consumption of fuel during the past five years has been as follows: During the year 1879-80, with hot-water piping, four hundred tons of coal were consumed; in 1880-81, four hundred tons; in 1881-82, using both steam and hot water, four hundred and twenty-five tons, (this was owing to our having a larger steam boiler than was necessary;) in 1882-83, using steam alone and with an addition of two thousand four hundred square feet of glass, we burned three hundred tons; in 1883-84, three hundred and twenty-five tons; in 1884-85, three hundred and thirty-five tons; in 1885-86, three hundred and seventy tons, with an addition of five thousand one hundred square feet of glass.

During the first two of these years, we raised almost exclusively bedding stuff, but gradually filled the houses with tea roses and carnations, and during last winter we ran two houses of lilacs, which we maintained at eighty degrees. Thus the stock which we have raised latterly has required a much higher temperature, and we can still show a saving.

COMPARATIVE FIRST COST.

The first cost is by no means a small consideration, and here again steam has the advantage. The cost of heating a house two hundred by sixteen feet by hot water would be, exclusive of the items of chimney, etc., six hundred and eighty-four dollars. To heat the same house by steam would cost five hundred and sixty-seven dollars. We, therefore, have a saving in the first instance of one hundred and seventeen dollars. On a larger range, the saving would be even greater, not only in the same ratio, but on account of boilers, for large steam boilers cost less than several hot-water boilers. Thus, a man putting up, for instance, six houses two hundred feet long would save on the first cost, at the same ratio, seven hundred and two dollars, but actually even more. A comparison of cost of the boilers on my place will give us an approximate understanding of the matter. Our old hot-water boilers cost, at the market price, three thousand nine hundred dollars; our present steam boilers cost one thousand nine hundred dollars. Here alone we show a saving of two thousand dollars, and if we add to that the difference in the cost of pipe, a saving in the first cost over hot water of thirty per cent. would be a mild statement.

FURTHER ECONOMY.

There are other reasons why steam, properly put in, should be more economical than hot water: not because more heat is made from a pound of coal, but from the method of applying the heat. Hot water boilers, as a rule, lose a large percentage of their heat up the chimney; it is not as thoroughly utilized as in steam. Again, it is necessary to fire with hot water at times when the steam boilers could be banked, in order to keep the water hot for any emergency. Another point which saves coal in steam heating is the fact that when the heat is not needed, it can be shut off. This is a thing impossible to do with the hot water boiler on a cold day. These are probably the main reasons why a saving of fuel is obtained.

HIGH PRESSURE *versus* LOW.

For our purpose, the low-pressure system of heating is decidedly the best. In the first place, it requires less attention; unskilled labor can be employed, and, with ordinary care, we have absolute safety. On the other hand, high pressure requires a good engineer, constant watching, and, therefore, the risk that the man in charge may fall asleep, the water get low in the boilers, and the man, green-houses and boilers be things of the past.

There are a few essential points regarding a proper low-pressure apparatus which I would call your attention to:

First. Ample boiler capacity.

Second. A main large enough to convey the required volume of steam with little friction.

Third. To have the pipes so laid that water, starting from the highest point of the main steam pipe, after leaving the boiler, will return, by gravity, to the same; not to have any pockets along the route, and to have a good drip from the circula-

tions to the return main, the same to be connected to the main return independently of one another. Thus, all snapping and banging will be avoided, as should and would be the case in *perfect* steam work.

If all green-houses heated by steam were properly piped, and had ample boiler capacity, we should not hear about the failure of this method of heating as applied to green-houses.

Everything considered, it seems to be the best method known of heating. It has its defects, but its advantages are so numerous that when it is better understood, and growers and help find means of remedying the former, it will undoubtedly be the system most used until science suggests something else. When we take into consideration the fact that steam for heating green-houses has only been tested for a few years, the number of places so heated already speak loudly in its favor.

The PRESIDENT: The subject is now open for discussion. Remarks on the advantages of hot water over steam are first in order.

Mr. PETER HENDERSON moved that the remarks be limited to ten minutes. Adopted.

Mr. C. B. WHITNALL, of Milwaukee, here remarked that Mr. Taylor, in his essay, had asserted that a large number of hot-water boilers were required to take the place of a steam boiler, but had not given the reason for it.

Mr. TAYLOR: It depends, of course, upon the extent of the area covered by your glass. Thus far, I have failed to see a hot-water boiler that would heat fifty thousand square feet of glass. It would take from twelve to eighteen hot-water boilers to do that. We have had on our place eighteen hot-water boilers.

Mr. J. M. JORDAN, of St. Louis, advised those of his hearers whose hot-water apparatus was doing well to continue its use, and those who were about to put in an entirely new plant, to decide for themselves upon the relative merits of hot water and steam by a personal inspection of the two methods. The point was one upon which it was difficult to give advice, and he thought it was equally inadvisable for the Society to commit itself in favor of either method. By way of correcting possible misapprehensions, he suggested that the allusion of Mr. Carmody to the temperature of a steam furnace, which that gentleman had stated at nine hundred degrees of heat, should be stated more specifically, so as to show that units, not degrees, of heat were referred to; also that an exaggeration had occurred in Mr. Taylor's estimate of the cost of heating a green-house with hot water. He said that that gentleman had put the cost of the apparatus for a house of two hundred and twenty feet in width at about \$1,000, but, in point of fact, a boiler with a capacity to heat a greater space could be purchased for a less sum than the one named. So far as the utility and healthfulness of green-house heating was concerned, the speaker was

unable to see that there was practically much difference between hot water and steam, though he had no doubt that in a large place, situated as was that of Mr. Taylor's, heat could be secured more economically by the use of steam.

Mr. TAYLOR replied that his figures were \$684 for a house of two hundred and twenty feet long.

Mr. S. C. MOON, of Morrisville, Pa.: There is one point in favor of hot-water boilers which, I think, has been omitted. I think when you have fifty or eighty thousand feet of glass, and have but one boiler, your whole place is liable to be completely frozen up in case that boiler happens to break down or give way on a cold night; whereas, if the same amount of glass is heated by several hot-water boilers in operation, the danger I have suggested is less than it would be with the use of steam, as only one boiler is liable to give out at a time. Therefore, it would be an advantage, instead of a disadvantage, to have a number of boilers.

Mr. TAYLOR: I think the gentleman (Mr. Moon) is quite right about that, but that very thing can be done by steam; in fact, most of the large places heated by steam have two or more boilers. Additional safety is thus assured, and in moderate weather only one boiler need be used.

Mr. T. EDWARDS, of Bridgeton, N. J., here rose to speak in behalf of the hot water side of the question, but was ruled out of order by the Chair, as the ensuing ten minutes had been appropriated for the use of the advocates of steam.

Mr. J. Y. SMITH, of Doylestown, Pa., said that a ten-minute limit upon an old man like himself, who moved slowly, would not permit him to say much. He referred to the discovery of the power of steam in the raising of the lid of a tea-kettle, and to the development of that power in the low-pressure engine, the condensing engine, and the steam-boat engine. He said he had in use in his green-houses a boiler which he had purchased from the Philadelphia, Wilmington and Baltimore Railroad, and had known of for nearly thirty years. Its cost was one hundred dollars, and he knew from experience that it had kept up the circulation of steam throughout his green-houses for about nine hours daily without attention. His green-houses were eight in number, and of these four were two hundred and fifty feet, and four were one hundred and twenty-five feet in length. He continued:

I am not a florist, but do pretend to be an engineer. The boiler which I have in use was condemned and thrown out, but I may continue to use it during my lifetime. It has already lasted many years, I have another boiler, purchased in Philadelphia, which, I was told.

had been in use for many years in heating houses or hotels. I am not a practical man in the cultivation of flowers, though I have served four years' apprenticeship in the business. I am using the refuse coal, which costs very little, delivered in Doylestown. With respect to the pipes, I would say that it is one of the simplest things in the world to secure a perfect circulation in a green-house; but, if you do not have a perfect circulation, the heating of your houses will prove quite expensive. If you have to force your water up hill, whether by pumping or other means, it will cost you a great deal of money. The speaker urged the importance of a proper arrangement of the heating pipes in a green-house.

MR. PETER HENDERSON, of Jersey City, N. J.: Two years ago I built a house three hundred and fifty feet long and twenty feet wide for the special purpose of enabling me to compare the relative merits of steam and hot water. In this house I placed two boilers for steam, which were almost identical in size with two boilers I had in a house of exactly similar dimensions, which was heated by hot water. My object was to decide the point whether there was any difference in the growth of plants in either case. I found that, in our season's trial, there was no difference whatever that I could detect. The plants grown in the steam house, which were roses, were just as good as those grown in the house in which hot water was used. In the cost of fuel we found the test to be a very satisfactory one. In the steam boiler pit we placed four measured tons of coal, and in the hot water boiler pit the same quantity. When the coal was exhausted in the hot water boiler pit, we found that we had one ton remaining in the steam boiler pit. To further test the matter, we placed three tons in the steam boiler pit, and again four tons in the hot water boiler pit. When this was exhausted in the hot water pit, we again found one ton left in the steam boiler pit—showing a clear saving of twenty-five per cent. The temperature in each house was, as near as possible, identical, and the conditions of both were as nearly the same as they well could be; if anything, the advantage was a little in favor of the house heated by hot water, because it was placed between two other houses, thus saving the exposure of the outer walls.

By way of deciding why it was that steam at two hundred and twelve degrees did not injure the plants (as we found it did not) any more than did hot water at probably one hundred and fifty or one hundred and sixty degrees, I took a thermometer and made tests at two, four, six, eight, ten, twelve, fourteen, sixteen and eighteen inches from a two-inch steam pipe and a four-inch hot water pipe. This was some time about the first of February. We found that, when placed

at a distance of two inches from the two-inch steam pipe, the thermometer marked 70° ; at two inches from the hot water pipe, 68° ; at four inches from the steam pipe, 68° ; at four inches from the hot water pipe, 67° ; at six inches from the steam pipe, 67° ; and at six inches from the hot water pipe, 66° . At fourteen inches from the steam pipe, and fourteen inches from the hot water pipe, in each case, 62° appeared. This showing, therefore, demonstrated that the difference was merely nominal, that practically no difference existed. Consequently, the general opinion about the injury done by steam pipes when heated up to 212° , has really no foundation in fact. The radiation is almost the same in both cases.

[The ten minutes here expired.]

Mr. H. A. SIEBRECHT: The last point made by Mr. Henderson is certainly a very important one, although it has almost invariably been overlooked. I wish to thank him for stating it.

Mr. J. D. CARMODY, being given ten minutes on the side of hot water, explained, in reply to Mr. Jordan's reference, that his own essay treated of units—not degrees—of heat. He continued:

The possibilities of hot water under pressure have never been developed, though tests have been made in isolated cases in which it has been in practical use. If you apply to hot water the same pressure which is applied to steam, you will have the same heat that you have with steam, but with a slower radiation; in other words, the hot water will retain the heat for more than twice the length of time for which it is retained by the same amount of steam. If you use two-inch pipes, and apply a steady pressure, you can heat your pipes with a pressure of twenty pounds up to a temperature of $257\frac{1}{2}^{\circ}$. That is as high a temperature as is often reached by steam. You seldom raise your steam more than from five to ten pounds' pressure. I claim, therefore, that you will get the same amount of heat in your pipes from hot water that you will get from steam. At the level of the sea, the boiling point is 212° . On the top of a high mountain it is regulated by the altitude. Put the water under pressure, fill the pipes up tight, expel all the air, and the boiling point will never be reached as long as those pipes hold the water in them. There will be neither steam or air in those pipes. In that way, you can get a high degree of temperature and a rapid circulation, using the same pipes for hot water that you use for steam. Furthermore, you get circulation in your hot water pipe more quickly than in your steam pipe, because hot water circulates immediately; that is, as quickly as heat is imparted to the water; whereas with steam the operation is slower, as you have to

expel the air from the pipes before filling them with steam. Your water, to produce steam, is required to be heated to 212° , with the additional units of 966° besides. Then, when your fire is extinguished you can only draw what heat remains in the pipes. Of course that latent heat will last awhile, but it quickly cools off. If your pipes are filled with hot water, that heat is retained in them longer, and you draw on what little heat there is in the fire, and all the heat that is in the boiler. I say if you want high temperature and quick circulation, you will use hot water under pressure. You will thus have all the advantages of steam with the additional advantages of hot water circulation.

Mr. JOHN N. MAY (being called upon by Mr. Peter Henderson) said: I am a hot water advocate, gentlemen. My reason is that I am a workingman, that I have to work for my living, and prefer to attend to my business myself rather than to deputize some one to attend to it for me. I tell you, honestly, that you cannot manufacture a steam boiler with which I could sleep soundly at night, if it was in operation in my place.

Mr. THOMAS DEWITT: I would ask Mr. Carmody how it is that he can get water to circulate in the hot water pipes immediately after making a fire, where there is no pressure. The hot water will not move until it begins to expand, and it will not expand until it gets to about the boiling point.

Mr. CARMODY: At 212° the water indicates no pressure. By adding to it one pound of pressure, you have 215° of heat, at two pounds 219° , and so on as you go up. One degree of heat will cause the water to expand immediately, and, if you have a stand-pipe, you can see the effect of a single degree of heat in raising the water, so that it will cover the bottom of your expansion tank. The more heat you impart to it the more rapidly the water will move.

Mr. E. G. HILL: I am an advocate of the use of steam, and a believer in its superior utility, because it enables you to fit out a plant at a saving in cost of one third as compared with hot water. In the second place, it furnishes a medium by which absolute control of the temperature in the houses can be secured. I think that that is a valuable consideration. The saving of one third in the cost of fuel would put enough money in the pocket of any one of our friends to warrant him in taking a little jaunt during the year, and getting back home without feeling that he had indulged in an extravagance which he could not afford. I admit that there is something in the claim that is made of the advantages of heating by hot water under pressure. I know of a gentleman in Cincinnati who adopts that method, and is

very successful with it, and that it enables him to show a decided saving in his fuel bill.

With respect to Mr. May's distrust of a steam boiler, I have only to say that a steam boiler is not likely to get out of order sooner or more frequently than a hot water boiler which is run on the low pressure principle, as there is no strain on the latter. Upon another point, I have to say that when the thermometer shows fifteen or twenty degrees below zero, if your house is properly piped for steam, you have only to open the valve and there will be no tension or strain on the boiler. On the other hand, I have found that it is necessary, when the state of the thermometer is as I have indicated, to force a hot water boiler to its utmost capacity. I think there is nothing of value in what has been said about people going to sleep and neglecting the boiler. Indeed, I think we had better not become too serious over this question of steam and hot water. Let me suggest this consideration that, in the use of anthracite coal, you have the advantage of being able to fix your boiler for either hot water or steam, and to leave it; but that with bituminous coal, this cannot be done, and you are required to employ a man to attend to the boiler, because of the liability of your coal to coke. The suggestion made by Mr. Moon has already been answered, because I think if there is risk with one steam boiler, there is, of course, risk with one hot water boiler. Moreover, the cost of purchasing two large steam boilers and setting them up would be, perhaps, the same as that of the purchase and fitting up of four hot water boilers.

Mr. J. H. TAYLOR: In reply to the gentleman from Indiana, (Mr. Hill,) I have to say that, two years ago, at Christmas time, a neighbor of mine, who uses hot water, had a fine house of lilies of the valley, and these, at that season, were worth considerable money. He went to bed one night, and, like Mr. May, slept soundly. The next morning he found that frost had entered his house, the boiler having *cracked* during the night. In another instance, one of my neighbors, whose green-houses are also heated by hot water, upon going out to look at his houses early one morning, found his watchman asleep; the fires nearly out, and the temperature in the houses near the freezing point. So that, as far as sleeping is concerned, I do not think Mr. May, on a cold night, sleeps any more soundly than I do.

Mr. DAVID CLIFFE, of Philadelphia: I have tried all the methods. Three years ago I bought two boilers, and have attended to them myself. Though at times I found the temperature in the houses getting a little low at night, I was enabled to get it up more quickly than I could have done if I had been using hot water. I have not suffered

from frost, and am a strong advocate of steam, because I have found it to be more economical—both in labor and coal. In my judgment, it has advantages over either flues or hot water. I have, perhaps, twenty thousand feet of glass, and can heat my houses with steam quite satisfactorily.

MR. PETER HENDERSON: Referring to what I have said about my experiment with the two boilers, one for steam, and the other a powerful hot water boiler, both almost identical, let me add that I have had them running for two years, and have asked my men repeatedly whether they could leave the steam boilers for as long a time as they could leave the hot water boilers. They assured me that they could leave them for two or three hours longer than they could leave the hot water boilers. [Applause.] To make my statement more definite, I will say that on an ordinary cold night they could leave the steam boilers for from eight to ten hours.

MR. JOHN THORPE: We have a steam-heating apparatus, and only four times during the past winter have we sat up at night with our steam boiler. Before that time, we had hot water boilers, and were obliged to sit up occasionally during the season. As a rule, the fire is made up at nine o'clock at night, and is not touched again until seven o'clock next morning, week in and week out. I have run it for three years now. We have had no accident, and no hitch or trouble in any shape or form.

MR. THORPE, in reply to an inquiry at this point, was understood to say that he used hard coal.

MR. DAVID CLIFFE: I use, principally, hard coal screenings, which are delivered to me at a cost of three dollars per ton.

MR. MURDOCH, of Pittsburgh, remarked that the boiler in use at his green-houses was inspected by the boiler inspector once a year, so that there was little apprehension of an explosion of the boiler because of its defectiveness. He did not consider that steam boilers were more dangerous than hot water boilers, but thought that one was quite as safe as the other in every respect. In regard to economy of fuel, he thought that steam had some little advantage over hot water.

MR. CLIFFE was understood to say that he could run his green-houses by circulating steam through them without any pressure at all.

MR. TAYLOR: In the spring and fall, or in moderate weather, we circulate our steam also with no indicative pressure on the boilers. I would say here that I hope to make a further saving in fuel by burning pea coal—a difficult thing to do with a hot-water boiler.

A DELEGATE: We have burned nothing but pea coal for three years under our hot-water boilers.

Mr. D. D. L. FARSON, of Philadelphia, referring to a statement by Mr. Cliffe, remarked that that gentleman had not shown any advantage in the use of steam, as compared with hot water, in the saving of fuel. In defense of the claims of hot water to favorable consideration, he explained that he had torn out a patent hot-water boiler, and in about fifteen hours, had constructed and put in perfect working order one of his own design. This he had used for several years. He had used for fuel, coke screenings from the gas works, the term for which material in this vicinity was "coke breeze." He maintained that when the question came to a matter of saving in fuel, there was nothing in the statements which had been made in regard to low-priced fuel for steam which showed that any material was so cheap as this "coke breeze," which, he said, was formerly bought for about two cents a bushel. He thought that some of the figures which had been given as to the cost of fuel were what might be called "pretty stiff prices" for poor florists to pay for material for firing their green-houses. In conclusion, he suggested that, while in large establishments steam might have some advantages, hot water was preferable in the smaller establishments, which were more numerous.

Mr. J. D. CARMODY, of Indiana, said he disliked to be like a jack-in-a-box, bobbing up every second or two, but there was somebody all the time pulling the string, and he couldn't help it! He continued: I want to state right here that not a single one of the hot-water advocates here has tested hot water to its utmost capabilities, whereas the other side have brought steam down to the very finest point. No florist here, I am sorry to say, has had hot water under pressure, and that is something with which florists should have some familiarity. Do not do away with a system until you have got out of it all that is in it, and you have not really begun with hot water. Put hot water under pressure, and we will have every advantage that you claim for steam, and two or three more.

Mr. PETER HENDERSON here interrogated Mr. Carmody with a view to having that gentleman fix, definitely, at what temperature he would work hot-water pipes under pressure. He continued: The gentleman complains that the steam-pipe endangers the health of the plant because it is heated at too high a temperature.

Mr. CARMODY: The gentleman is mistaken.

Mr. HENDERSON AND OTHERS: We understand that that statement was made in the paper read by you.

Mr. CARMODY: My statement was that you were compelled to have a high temperature when only a low temperature was necessary. Now, let me explain for one moment. We will say that for a cool

day in the fall, we need a little heat. In order to get any at all when using steam, you are obliged to heat your feed-water from 212° to 215° , and your heating pipes have to register from 212° to 215° through their circulation. Now, with hot water under pressure you can heat your feed-water to 100° . Your pipes, at the same time, are throwing out heat from a basis of 100° all through the house—that being a low, mild temperature. You can increase that heat then, and make it just as high as you please. Consequently, the temperature you maintain in your pipes and boiler is regulated by your own will and desire. Of course, if it is colder out of doors, it is colder in your house, and you want a higher temperature in your pipes. I would run my pipe according to the demand, from its normal condition, or from 50° up to as high as 257° ; and you can keep your pipes right there at that.

Mr. PETER HENDERSON: I would say that, in practical operation, that would be a very difficult thing to do. If the pipe was under your own personal supervision and you were watching it, that might be done; but if you had to leave it to others, it is not likely that it would be done. My green-houses, the great bulk of them, are heated by hot water, and we have them regulated so that if we want 40° of heat, we place four pipes in a twenty-foot house; if we want 50° , we place six pipes in a house of the same dimensions, and if we want 60° , we place eight pipes in the house. Consequently, the fireman would have nothing to do but to keep up his fires—the temperature would regulate itself by the amount of pipe placed in each house.

Mr. J. D. CARMODY: You regulate your temperature by the open tank system, just as you do with the pressure system, so far as the hot water is concerned. Now, do you raise those pipes, on a mild fall day, to the same temperature that you have when the thermometer is down to zero?

Mr. PETER HENDERSON: Certainly not; but the fireman regulates that, because the pipes are there graded to suit the temperature we want.

Mr. J. D. CARMODY: When you start to heat the pipes, you have not the same temperature that you have after the fire has been going four or five hours. Consequently, during that time your pipes will register all of the intermediate degrees. One night you may not run the temperature over 150° —the next night it is cold, and you run the same pipe up to 180° .

Mr. JORDAN: Perhaps the discussion has gone as far as may be desirable, but, as there is some little misunderstanding in regard to the terms used here, I would like to add a word. Water boils at 212° at the ocean's level—that is, a pressure of fourteen pounds to the square

inch of atmospheric pressure. When there is more pressure than the atmospheric pressure, then you increase the degrees of heat in proportion to the pressure that is put on the water. There is such a thing as heating water so hot that it will dissolve lead. The suggestion seems to have been made by one of the speakers here that water could not be heated above 212° , and must boil there. That, however, is not the fact, because you can keep the pressure down on water so as to rise to 300° or 400° , but it takes an immense pressure. I am running my boilers with a pressure of eight pounds to the square inch, and I do it by having the water elevated in the tank, by giving it about seventeen feet of an elevation, which produces a pressure on the boiler. By that I am enabled to carry the water two hundred and twenty-five feet through the green-houses, coming into the expansion tank at the boiling point. That is when the pressure is taken off. There is the advantage of having water under pressure, and you can continue to put that pressure on. If you have the same pressure in hot water that you have in steam, when your pipes are filled, you will have the same heat. Water will take up the heat, because the steam cannot be any hotter than the water from which it is imparted.

Mr. J. H. TAYLOR: In heating by steam, we do not increase the heat by raising or lowering the temperature in the boiler, but by increasing or decreasing the number of radiating pipes in the green-house. From two to five pounds' pressure at the boilers is all that is required to properly circulate steam at low pressure.

Mr. JOSEPH TALBY, of Mass., remarked that, as between the two, he thought that in a large establishment, where it was necessary to keep an eye to fires, steam might be cheaper. He suggested the thought, in connection with this view, that while all the garden men were attending this convention to-day, a sudden change in the atmosphere might send the thermometer down to zero to-night. He remarked that florists wanted to manage their green-houses with the least amount of fuel, and at the same time with safety, so that they could go to bed at a reasonable hour at night. (At this point, owing to temporary confusion, the speaker's remarks were inaudible at the reporter's seat. He was understood to detail a method which he had originated and made practical in heating his green-house.)

The PRESIDENT said that the last five minutes of the time for the discussion would be utilized by Mr. Fowler.

Mr. A. B. FOWLER, of Exeter, N. H., said he professed to know something on the subject, as he had started in steam-heating when engaged in the green-house business. He felt, however, that he could say he was not wholly an advocate of steam; that certainly he would

as gladly sell to the trade machines for hot water use as he would machines in which steam was to be used. His purpose, he said, at this time, was to correct what he regarded as erroneous statements upon several points in the essay read by the gentleman from Indiana, Mr. Carmody. That gentleman had stated that an air-valve was required on each pipe, when his statement should have been that an air-valve was required on each nest of pipes.

Mr. CARMODY here remarked that the statement he had made was, as stated, with reference to a nest of pipes.

Mr. FOWLER went on to say, in reference to Mr. Carmody's statement, that in the use of steam in green-houses, it was necessary to keep an engineer, that if the opinion of florists accustomed to heating by steam was consulted, their reply to that statement would show that they disagreed with the gentleman from Indiana. He continued:

Water boils under atmospheric pressure, as we all know, at 212° —that is, at the level. Of course this varies at an altitude. When you go up on a mountain, you have to apply greater pressure for cooking purposes. The gentleman from Indiana did not tell us, and I did not ask him, whether the point was higher or lower at an altitude such as that. You have in steam at no indicated pressure a sensible heat of 212° ; but what is the difference between hot water at 212° and steam at 212° ? The difference is these 966° . Gentlemen have been talking about latent heat, and let me say to them that in that latent heat is contained the most of the heat that you get in your green-houses when you heat them by steam; and when you extract that latent heat the steam goes back into water again. The question with respect to keeping up a fire has been covered by others. As to the question of cast-iron and wrought-iron boilers, it need only be said, perhaps, that when you pay your money you take your choice. The gentleman from Indiana (Mr. Carmody) told us about the flowers blooming in the spring and fall, but did not say anything about the roses that bloom in July, except to ask if flowers grew in the hot July sun. In Massachusetts they do, and that is what is called summer blooming.

Mr. CARMODY (humorously): In Labrador they bloom better in July than in any other month, I suppose.

Mr. FOWLER: The gentleman probably knows the fact; I do not, as I never was there. So far as steam-heating is concerned, I went into it many years ago, and the gentlemen here from Boston probably recollect that I fought hard for steam. I was told that I was wasting my money, but I persisted, and was successful. I have followed it up ever since then, and you see where it is to-day.

The PRESIDENT: Since making the announcement that the discus-

sion would close with the remarks of Mr. Fowler, the Chair has been apprised of a general desire to hear from a gentleman of known practical experience on the steam side of the question—Mr. H. M. Smith, of New York, manager of the Wilson Boiler Company—who is now cordially invited to take the floor.

Mr. H. M. SMITH, of New York, responded: During an experience of twenty years, it has been my fortune to encounter nearly every question that has been suggested in connection with steam or hot-water circulation; and this is especially true of recent years, since I have been endeavoring to determine the best plan of “remodeling” for the adoption of the street system controlled by the New York Steam Company, in buildings situated on the line of their pipes. As a matter of fact, there are points about the street system which, if they could be adopted in green-house warming, would discount, in absolute superiority, all the advantages claimed for any man’s boiler for either purpose. Of course, it is impracticable to warm a green-house in Indiana with steam generated in the city of New York, not because we could not send the steam out there, but because to do that would cost too much, and it would be cheaper to use a local boiler. In regard to different temperatures and economy of heating by the different methods, I have to say that I think the gentleman from Indiana (Mr. Carmody) is correct in his statement as to the temperature of hot water under pressure. There is no doubt that hot water can be raised to the temperature of steam, due to any pressure that you may care to adopt, if your boiler is in the hands of an experienced engineer. But if you do raise hot water to the temperature of steam by placing it under a pressure, you at once create a different state of circumstances. It will then be necessary to increase the cost of your hot-water plant, because you must increase the strength of that plant. If you place that pressure at ten pounds, for instance, you increase the temperature and the expansive force of the water, also the expansion of the pipes, due to the increased temperature of the metal. What, then, will become of your packed joints which have been made by this cheap labor, and what becomes of the argument that a hot-water boiler can be handled by such cheap labor? If, after you have put the hot water under pressure, you get a temperature which is the same as that of steam, what becomes of the claim that hot water is preferable because its temperature is not as high as that of steam? I fail to see any difference between the temperature of a pipe warmed by hot water and one heated by steam where the pressure is the same in both cases. If you pass fire through that pipe, the external effect, or the effect upon the surface of the iron, is the same at even tempera-

ture. The idea that the exterior of a water or steam-pipe is more moist than it would be if heated by some agent other than hot water or steam is a mistaken one.

With respect to the point raised on the hot water side of the question, viz: that the temperature of your apparatus is not liable to fluctuate during sudden changes of the external atmosphere, I would say merely that you do not depend, either in the case of hot water or steam, upon the temperature of the metal for the accomplishment of that result. When you heat the air of the apartment, the temperature of the atmosphere of that apartment is affected by the circulation of the heated air through that room. The table of figures from which the gentleman from New Jersey (Mr. Peter Henderson) has quoted partially demonstrates this fact, as it shows that at two inches from the iron a difference of only two degrees is apparent, and that, at a distance of sixteen inches, you have the same temperature in either case. Indeed, if your plants were to be placed in direct contact with the coils, no substantial difference in result would be perceptible, so far as concerns the means by which those coils are heated.

A knowledge of the principles of circulation is indispensable in dealing with heating apparatus, and it seems to me that the essayists upon either side are, to say the least, arguing from a lack of familiarity with the facts. Indeed, the trouble has been that users of steam and hot water, taking the average of them—like our good friend from Cincinnati, (Dr. Hawes,) who wanted to heat his house and thought he had but two ways of doing it—are not sufficiently well informed upon the subject. If those who introduce the hot-water system into a house have not a thorough knowledge of the principles governing its operation and can exercise no intelligent supervision over it, objections to it will naturally arise that will cause it to be condemned. The same observation may be made where steam is introduced without proper attention being given to the areas of pipes. If you use a boiler of a certain construction, (and being myself a manufacturer of a boiler, I am not disposed to take advantage of this opportunity to criticize any particular method of construction,) you are obliged to rely upon the quality of the draft for a large part of the effectiveness of the apparatus. In this respect, the advocate of the hot-water boiler has an advantage, because the entire principle upon which a hot-water boiler is constructed is to present a horizontal surface upon which the fire will radiate, and which will afford the most efficient medium for taking advantage of the radiant heat of the fire. That is the instrumentality to which reference is made when it is claimed that you can rely upon hot water because you get certain re-

sults after the fire becomes low. Every hot-water boiler of which I know anything is constructed on that basis. I heard a gentleman arguing, in conversation, this morning, on the advantage of a boiler of fifteen feet in length, but the only object to be attained by that construction, in my judgment, is to cause the heat to keep circulating under that horizontal surface, thereby utilizing all the radiation from the fire that is possible, because, as you know, heat is radiated from the fuel in all directions so long as combustion goes on, be it ever so slowly. In other words, my claim is this: that the success of either system depends largely, first, upon the area of pipe, and then upon the fire surface exposed to radiation from the body of fuel. If the boiler is not defective and the apparatus is so constructed that you can get the best results upon either principle, it will then be time for you to begin to argue as to the relative economy of the two. I question much whether any gentleman here has a steam apparatus in one house and a hot-water apparatus in another, upon the practical workings of which a test can be fairly based which will show the relative economy of the two.

Mr. PETER HENDERSON, of Jersey City, N. J.: It was with that object in view that I constructed the two houses, in which I placed steam and hot water boilers respectively, as I have already stated, and I have given the results of that experiment.

Mr. SMITH: I beg pardon. I did not understand that the gentleman had made the test. I will not occupy the time longer, as it was not my intention to make any remarks, but simply to hear what others, having practical experience with the subject of green-house warming as florists, had to say upon it. It seems to me that both sides have presented good points, and that these could be fairly gathered by some one competent to compile them from the two essays, and from the stenographic report of this discussion. In this way a paper might be prepared, which would be of inestimable value to this association.

(At this point, the audience manifested its appreciation of the remarks to which it had listened with evident satisfaction by a tumult of applause.)

On motion of Mr. E. G. HILL, of Indiana, the thanks of the Society were tendered to Mr. Smith, by a unanimous vote, for "his able and disinterested exposition of the relative advantages of steam and hot water."

Mr. HENRY A. SIEBRECHT (being allowed two minutes) said that he proposed to speak for both sides of the question. He thought that the weight of the argument in the discussion which had just taken

place was slightly in favor of steam as against hot water. Mr. Henderson had proved by facts that in the use of steam he had saved coal. While conceding as true all that has been said in behalf of steam, Mr. Siebrecht advised those who had introduced hot water apparatus into their places at great expense not to discard its use, but to proceed cautiously. For one, he was satisfied with hot water, but he thought that parties who were about to open new places and purchase new heating plants should give steam a trial. If starting on a small scale, it might be well for them to take the safer way, and purchase a little hot water boiler.

Mr. DAVID CLIFFE, of Philadelphia, submitted a motion as follows: "That it is the sense of this meeting that in this discussion it has been shown that steam combines more advantages than hot water."

Mr. D. D. L. FARSON, of Philadelphia, in opposition to the motion, said he thought that at present the convention was not qualified to give an indorsement to any scheme which had not been fairly tested to the satisfaction of all, as such an indorsement would have an effect to mislead many florists when contemplating improvements. He hoped that Mr. Cliffe's motion would be voted down, as the Society, he thought, has not prepared to give an unqualified indorsement to either scheme.

Mr. CLIFFE replied that he had made his motion for the reason that he thought the opinion of the convention was preferable to that of an individual or a number of individuals acting separately.

Mr. PETER HENDERSON: I would move to amend the motion so as to make it read that, in the opinion of the association, hot water is preferable to steam in all cases where the construction is under five thousand square feet of glass; and that where a construction is to be made exceeding five thousand feet of glass steam is the better.

A DELEGATE: That is a mere expression of opinion. I think the convention should be careful not to adopt mere individual opinions. We want not opinions, but facts.

Mr. J. D. CARMODY: At this time it would be impossible to secure more than a minority vote upon any proposition as a majority of the members of the convention have retired from the hall.

Mr. H. M. SMITH, of New York city: I would like to make a suggestion. As a member of the convention, it seems to me that the time has not arrived for expressing the sense of the body on this subject. I think we have been feeling around a little, and have attained some good results. I make the suggestion—if any one will put it in the form of a motion, I would be glad to hear it—that, instead of expressing an opinion at this time, we declare it to be the sense of the

convention that we are all deeply interested in the subject, but have not squeezed the lemon dry by any means! Therefore, in order that we may have more light on the subject, and more "juice," I move that a committee of three be appointed by the Chair, to select an expert in the matter of green-house heating, whose duty it shall be to prepare an essay, to be delivered before this convention at our next annual meeting.

Mr. ROBERT KIFT, of Philadelphia, by way of suggesting the desirableness of precautionary measures against accidents in the preliminary work attending the introduction of steam-heating apparatus into green-houses, narrated an incident in his own experience, in which, when putting in a boiler, his father had been obliged to excavate the ground to a depth of some fifteen feet. On the morning after the excavation had been completed, the hole thus made was found to have become one third filled with earth, from the caving in of the sides. The speaker remarked that if the accident had occurred in the daytime, while the work was progressing, some of the men employed in the work of excavation would probably have been killed. He said he mentioned the circumstance for the information of florists engaging in similar operations, and suggested that the proper course in such cases was to shore the hole up.

The convention here proceeded to vote, when (Mr. Cliffe's motion having been withdrawn) the motion of Mr. H. M. Smith was adopted without objection.

GENERAL BUSINESS.

Mr. H. A. SIEBRECHT, of New Rochelle, New York, moved that the Chair be authorized to appoint a committee of two upon the best method of glazing, the committee to report to this convention.

Adopted without objection, and Messrs. H. A. Siebrecht and P. R. Quinlan were constituted the committee.

Mr. WILLIAM K. HARRIS, of Philadelphia, moved that the treasurer of the Society of American Florists be directed to defray expenses of the Executive Committee incurred in attending the meetings of the Society.

Mr. DAVID CLIFFE: The traveling expenses, do you mean?

Mr. HARRIS: Yes, sir.

Adopted without dissent.

Mr. D. D. L. FARSON, of Philadelphia, moved that the President be authorized to appoint a committee of two to make a practical test of the merits of the fumigators now on exhibition, and to report the re-

sult of their labors in the columns of *The American Florist* at as early a day as possible.

Adopted without objection.

Mr. D. D. L. FARSON moved the appointment of a committee of three, whose duty shall be to examine into the merits of any insecticide that may be offered for consideration, and decide whether the same possesses the qualities claimed for it, with power to grant a certificate from the Society of American Florists, stating the facts in regard to such insecticide.

Adopted without objection.

The PRESIDENT stated that he would defer the appointment of the committee just mentioned until opportunity had been afforded him to determine upon its membership.

Mr. D. D. L. FARSON, of Philadelphia, here said: The Keystone Male Quartette Company, of Philadelphia, accompanied us yesterday to Mr. Childs' place, and, while there, entertained us with vocal music. I move, therefore, that the convention tender its thanks to the Keystone Male Quartette Company, of Philadelphia, for its kindness in rendering its services on the occasion referred to.

Mr. J. C. VAUGHAN, of Chicago, suggested the reference of Mr. FARSON'S motion to the Committee on Final Resolutions, in order that it might be included with matters of similar import upon which the committee was expected to report.

(The reference was made as suggested.)

Mr. WALTER F. FANCOURT remarked that, in the discussions of the convention, many subjects had been comparatively ignored which he thought were entitled to precedence, and that the time had been mainly occupied in considering two or three specialties. He submitted a motion reciting this fact, and proposing the appointment of a committee of three to ascertain whether the reason for it was to be found in the diffidence of the florists, or a lack of appreciation by the public.

A vote being taken, twenty-two gentlemen arose in the affirmative, and thirty-seven in the negative; therefore, the motion was not agreed to.

Mr. F. H. MILLMAN, of Cumberland, Maryland: There is a small matter on the programme which has either not been thought of, or willfully neglected. I refer to the matter of dry flues. At different points in our sessions, one or two gentlemen wanted to speak upon it, and one did attempt to speak. I move that the rules be suspended, and remarks be permitted on that question.

The PRESIDENT: The subject is quite in order. Mr. Thorpe informs

me that he has a communication upon that very matter, and would like to read it. It will only take a moment or two. The subject will now be considered.

Mr. JOHN THORPE: The statement which I would like to make is this: Mr. Hamilton, of Allegheny City, Pennsylvania, was instructed to give us a paper on the subject of "How to Build a Flue." On yesterday morning, I received a letter from him, saying that his family was suffering from quite a severe sickness, and that it was impossible for him to leave home; that as it was not his custom to commit anything to paper until the last moment, he had not prepared anything; and we would have to get along without a paper on the subject.

On motion of Mr. H. A. STEBRECHT, ten minutes were here appropriated for the purpose of hearing remarks by gentlemen present on the question of flues.

Mr. ANTOINE WINTZER, of West Grove, Pennsylvania, said he would feel that he had been personally derelict if he failed to make a few remarks before the adjournment in regard to the much despised flue or hot-air apparatus, or whatever it might be called. It was the motive power used by our fathers, and he claimed it furnished the foundation of the florists' business. Years ago, when steam was not applied to the heating of green-houses, when very few hot-water apparatuses were in use, the operator, here and there over the country, who had but small capital, built his flue and raised his few plants. The flue was dropped. Why? Because builders of flues generally made a botch of their work. The fault was not in the flue, but in the builder of it. The speaker asserted that he could prove that plants could be grown to-day with the old flue in successful competition with hot water or steam apparatus, and that he had the facts to prove this. He said he was handling to-day sixty green-houses, every one of which is heated by a flue, there being sixty flues. He held that it was the matter of labor required which had driven flues out of general use, and asserted that it did not take very much more labor to run a section by flues than was required by any other means. In the establishment with which he is connected, the fires could be made up, in ordinary winter weather, at five o'clock in the evening, and then left without watching or attendance until seven o'clock the next morning. They were growing roses to-day in competition with all other establishments that were heated by means of the improved systems. If the system of which he spoke proved a failure, he would be willing to be held to some responsibility, but if it held its own with other establishments, he would want to have some credit for it. Others, besides those connected with his establishment, were interested in the matter,

as, he claimed, it was one which concerned every small florist throughout the length and breadth of the land. Everybody engaged in the business of growing flowers who did not have thousands of dollars of capital at his command was interested in it. To those people he would say that nothing would give them the advantages which they would secure in the use of the old flue with its improvements. A greenhouse could be built and completed with a flue at far less expense than with any other modern heating apparatus. In 1875, he (speaking for the Dingee & Conard Company) reconstructed a section of houses that had been heated with hot water, and substituted flues in the place of the hot-water apparatus. The speaker claimed that he could heat a larger area of glass by the flue system than by the hot-water system. If an advance had been made in the latter, and none in the flues, that fact was no fault of the flue, but the fault of the American public in neglecting to appreciate the capacity of the flue, and the utility of dry-air heating.

Mr. WINTZER added that his establishment had four workmen, but no night watchman, and had never suffered from fire or from gas.

(The ten minutes here expired.)

Mr. SIEBRECHT suggested that permission be given to Mr. Wintzer to prepare his views on the point at greater length for publication.

Mr. A. GALLUP, of Denver, Colorado, here called attention to the motion which had been adopted in regard to defraying the expenses of the Executive Committee. He stated that a great deal of work devolved on the committee, and quite a heavy expense was entailed upon them in preparing for the annual meetings. He did not think that the honor conferred upon them by their positions was a sufficient recompense for them. He therefore moved that, in addition to an allowance for mileage, the members of the Executive Committee be allowed necessary hotel expenses when preparing programmes for the annual meetings of the convention.

Mr. DAVID CLIFFE asked if an estimate could be given of the probable amount of the expenses. He said he thought the Society ought to know what expenses had been incurred.

The PRESIDENT explained that the object was not to defray expenses already incurred, but to provide for the necessary outlay incident to any meeting the Executive Committee might be obliged to hold in the coming year.

Mr. GALLUP: That is the idea.

The PRESIDENT: The author of the motion can have no basis upon which to form an estimate, for it is not yet known where the meeting will be held.

The motion of Mr. Gallup was adopted without objection.

Mr. H. M. SMITH, of New York city: I wish to modify a motion which was adopted upon my suggestion, so that the same shall provide that the committee appointed by the Chair to secure the services of an expert, who is to make a report to the convention next year on the matter of heating, shall be authorized to expend such sum as they may think proper in securing the service of such expert. I would suggest that the committee will not find an expert who will be willing to devote his time to the service of this association unless paid for it.

The motion of Mr. Smith was adopted by an unanimous vote.

GENERAL BUSINESS.

Mr. H. A. SIEBRECHT: In order to get through with the business. I move that all reports on exhibits, as well as other reports which have not been offered or read, be received; that the reading of them be dispensed with, and that they be printed in the pamphlet report of this meeting.

The PRESIDENT (replying to an inquiry): The motion does not include the report of the Committee on Final Resolutions.

The motion of Mr. Siebrecht was adopted by a unanimous vote.

The PRESIDENT (replying to a suggestion, to which no objection was heard, that the report of the Committee on Final Resolutions be included among the reports provided for in the motion just adopted) said: If there is no objection, then the report of the Committee on Final Resolutions will be printed with the other reports.

The suggestion of the Chair was generally assented to, and the report of the Committee on Resolutions is here inserted. It is as follows:

Resolved, That the Society of American Florists extend its thanks to Miss Schaeffer and Mr. J. E. Mitchell for the use of Horticultural Hall, in which was held the convention. And to the Florists' Club of Philadelphia we extend our most grateful thanks for the royal way that we have been entertained, but while fully appreciating its great kindness and attention, that has involved so much labor and expense, we most earnestly trust that this kind attention should not be taken as a precedent for future conventions, and that at the meeting to be held in Chicago, next August, the delegates there will best please those of the Society in general by an entire omission of these courtesies.

Resolved, That the members of the Society of American Florists render their most hearty thanks to Mr. George W. Childs for the spontaneous and most princely hospitality which we have received at his hands.

Resolved, That, knowing that the Society of American Florists, now a solid success, was the inception of its retiring president—Mr. John Thorpe—who, despite great opposition from many members of the Nurserymen's and Seedmen's Association, determinedly sowed the seed that has now become such a fruitful tree, deserves in the highest degree our most hearty thanks for the time so generously given, and the great ability so markedly displayed in bringing the work to such a high degree of success.

Resolved, That the thanks of the members of the Society of American Florists be tendered to our retiring secretary, Mr. E. G. Hill, to whom, more than any other, is due to-day the credit, and the honor, and the success we all enjoy, and it is only because of his early and positive declaration not to be able to further serve that he was not unanimously re-nominated and consequently re-elected.

Resolved, That a vote of thanks be extended to Mr. Adolph Le Mout for the novel and instructive entertainment which he afforded the delegates in his practical address and performance of "How to Arrange Cut Flowers," etc. Also, a vote of thanks to the Y. M. C. A. for the kind invitation extended to us to visit their rooms and to partake of the benefits, etc.

To the managers of the Girard College and Mr. Huster, superintendent of the grounds, for the invitation to visit and examine all that is worthy of our inspection at that monumental institution.

To the directors and superintendent of the Zoölogical Gardens for their generous invitation to visit this instructive institution.

To the Union League Club, of Philadelphia, for the kind invitation to visit its building and partake of its hospitalities, which, from the active and unsparing support which its members rendered to the cause of liberty, which is extended at all times by its members, is gratefully acknowledged by your committee.

PETER HENDERSON,
JOHN H. TAYLOR,
W. J. STEWART.

On motion, it was agreed that the president appoint a committee of three to make a practical test of the "Excelsior Fumigator," said committee to report through the columns of *The American Florist* as soon as possible. The Chair appointed as this committee Messrs. D. D. L. Farson, John Savage, and David Bearn.

On motion, it was agreed that a committee be appointed to thoroughly test any insecticide that may be brought before them, and said committee to have the power to grant a certificate to any insecticide

that may be found to be worthy of it. The Chair appointed as this committee Messrs. W. K. Harris, Fifty-fifth street and Woodland avenue, Philadelphia, and George Anderson, Fifty-third street and Woodland avenue, Philadelphia.

[NOTE BY THE SECRETARY.—When insecticides are sent to the committee for trial, the express charges must in all cases be “*paid through to destination* ;” otherwise they will not be received.]

Mr. H. A. SIEBRECHT moved, and the motion was duly seconded, that a committee be appointed to test and report on the value of J. M. Gasser's system of glazing; whereupon President Craig stated that he would undertake to make the necessary trial, and would report in due time.

On motion, the convention adjourned until 1887—the time of reconvening to be fixed by the Executive Committee.

EDWIN LONSDALE, *Secretary,*
Chestnut Hill, Philadelphia, Pa.

APPENDIX.

I. THE QUESTION BOX, WITH ANSWERS.

The various questions found in the box during the last hours of the convention are here presented, with answers thereto.

1. DAVID CLIFFE asks: What varieties of carnations does Mr. Tailby recommend to grow?

[*Answer: Grace Wilder, Fred. Johnson, Princess Louise.*]

2. What would be the cost of the design made by Mr. LeMoult at present (August 20) New York prices?

[*Answer: \$35 to \$50.*]

3. Is it profitable to force lilies of the valley early in the season?

[*Answer: No; although the price per spray may be higher, in the fore part of December the risk of getting a good crop is much greater.—J. H.*]

4. Can Dutch bulbs be grown profitably in the low lands of the South for wholesale purposes?

[“Observer” says: “The soil about Jacksonville, Ga., seems identical with the Holland sand.” “Observer” also saw offsets that had been grown into flowering bulbs in one season, in Florida.]

5. How can the rose *Her Majesty* be prevented from attacks of mildew?

[*Answer: No positive preventive, up to the present time, has been found. To keep it under glass all summer, with fire heat nearly all the time at night, might be tried, with lots of sulphur on the pipes.—J. N. M.*]

6. My benches in a green-house are infested with a small white ant. It likes moisture, and eats away the wood so as to make a bench too weak to hold plants within one year. It enters the pots at the bottom, eats the roots off geraniums, and ruins them. It is believed that they were introduced with plants that were imported. Can any member speak from experience as to what will rid my place of them?

[*Answer: The best of all remedies for the destruction of mites and ants is crude petroleum. Put it on the benches thickly with a paint brush.—J. THORPE.*]

7. Since last year, a green metallic bug eats all the leaves of the fuchsia in a desperate manner. What is the name of it, and what the remedy?

[*Answer: According to Professor Riley, this fuchsia pest belongs to the flea beetles, and is scientifically known as *Graptodera carinata* (family *Chrysomelidae*.) Pyrethrum not only numbed them, but kept them off the plant. Paris green was tried, but it did little or no good.]*

9. How many feet of four-inch pipe is required in a carnation house containing about 750 square feet of glass in latitude $40\frac{1}{2}^{\circ}$? The house runs east and west, and is between two other houses.—STRAUCH BROS.

[*Answer: One hundred and fifty feet of four-inch pipe, with a butterfly valve to regulate.—J. D. CARMODY.*]

S. What is the best remedy for black beetle, which is so destructive to dahlias and asters when in bloom? They seem to be worse in the Ohio valley than anywhere else.

[*Answer*: Specimens of the insect complained of were sent to the United States Department of Agriculture, and a reply was received as follows:

UNITED STATES DEPARTMENT OF AGRICULTURE,
DIVISION OF ENTOMOLOGY,
WASHINGTON, D. C., August 28, 1886.

In the absence of Professor Riley, I beg to acknowledge the receipt of yours of yesterday, accompanied by beetles injuring your China asters. These are specimens of the common Pennsylvania blister beetle (*Epicauta Pennsylvanica*.) The habit which this beetle has of destroying China asters is very well known in this city, and for which there seems to be almost no remedy. Florists here kill the beetles by hand, using for this purpose a pair of flat-bladed wooden shears. Care should be taken in crushing the beetle not to get the juices of the body on the naked skin, as their vesicating properties are very strong—so strong in fact that if a sufficient number could be gathered they would really have some commercial value in the manufacture of "fly-blisters."

Yours truly,
L. O. HOWARD,
Assistant in charge.

II. REPORT OF COMMITTEE TO AMEND BY-LAWS.

The committee appointed on motion of Mr. J. N. May to amend the by-laws of the Society, the object being to change the day of meeting in convention, and also to look into the matter of conducting the business of the convention without interruption until completed, respectfully submit the following additional by-law:

Article 5.—This Society shall hold an annual meeting, commencing on the third Tuesday in August, and continuing three days, unless the business before the meeting cannot be finished in that time, when the time may be extended by consent of two thirds of members present.

The convention shall hold three sessions each day uninterruptedly, until the business of the Society be completed, and no local committee, nor the officers of the Society, shall have power to set aside this by-law, except as provided in section eight.

(Signed)

J. N. MAY,
E. G. HILL,
J. C. VAUGHAN,
Committee.

III. REPORT OF COMMITTEES ON EXHIBITS.

The various committees appointed (see page 26) to make awards on exhibits have reported, up to the time of going to press, as follows:

REPORT OF COMMITTEE ON PLANTS AND BULBS.

E. D. SPURTEVANT, Bordentown, N. J.—One of the leading features of the convention and most interesting exhibits, was the display of aquatics made by this gentleman. It occupied two tanks: one was filled with the foliage and upwards of one hundred blooms of the "Sacred Egyptian Lotus," (*Nelumbium speciosum*.) In the other tank, was a leaf of the *Victoria Regia*, which was about five feet in diameter, and a bloom measuring about twelve inches. There were also the showy *Nymphaea Dromiensis*, *Zanzibariensis*, *azurea*, and *rosea*, (the pink "Cape Cod pond lily,") and a variety of other water plants.

CRAIG & BROTHER, of Philadelphia, exhibited a rare and interesting collection of ferns, among which were *Platygyerum Æthiopicum*, and *Actinopteris radiata*, together with fine palms and crotons.

CHARLES D. BALL, Holmesburg, Pa., exhibited an interesting collection of ferns, which included *Adiantum Seemanii* and *A. Rhomboideum*.

SIEBRECHT & WADLEY, of New Rochelle, N. Y., showed a few fine specimens of orchids—*Cattleya gigas*, *Saundersiana*, and *Cattleya Speciosum*, which attracted considerable attention.

ERNEST ASMUS, of Union Hill, N. J., made a novel exhibit in blooming tulips, lilies of the valley, and miniature lilac bushes. These are things rarely seen in August, and proved to be, as they deserved, one of the most instructive and interesting displays on exhibition.

DAVID FERGUSSON & SONS, Laurel Hill Nursery, Philadelphia, exhibited a choice collection of rare plants, amongst which were *Alocasia Sandersoniana*, *Dieffenbachia Seemanii* and *Araucaria Kerchoviana*.

THE DINGEE & CONARD COMPANY, of West Grove, Pa., exhibited a collection of healthy hybrid perpetual and tea roses in two and a half inch pots.

DENYS ZIRNGIEBEL, Needham, Mass., exhibited a collection of pink and white pearl Asters.

A. BLANC, of Philadelphia, exhibited a large and superior collection of cacti, in which were over four hundred species or distinct varieties, the most of which were of especial merit. The *Agave Victoria Regina* is probably as fine a specimen as there is in this country.

CHARLES FOX, of Philadelphia, exhibited two fine specimens of *Bilbergia rosea*.

SCHULTHEIS BROS., College Point, N. Y., showed a collection of strong budded roses.

A. WARNE, Philadelphia, exhibited some fine blue Hydrangeas.

DAVID CLIFFE, of Germantown, Pa., had an Abutilon with variegated foliage, which attracted some attention. The same exhibitor also had a grand specimen plant of *Araucaria imbricata*, and a variegated Begonia.

J. KIFT & SON, of Philadelphia, exhibited a novel fern panel, which is very useful, and when filled with growing plants, as these were, it is very beautiful.

HENRY A. DREER, of Philadelphia, made a fine display of Gloxinias in full bloom, and of tuberous-rooted Begonias. These formed a prominent feature of the exhibition, as did some well-grown plants of *Thrinax Parviflora*, and well-grown pans of *Adiantum*. In bulbs, the same exhibitor showed four varieties of *Lilium*, some Paper-White Narcissus, and *Freesias*.

F. E. McALLISTER, New York, had on exhibition fine bulbs of *Lilium candidum* and *Harrisii*; also Paper-White Narcissus and *Freesia* bulbs.

J. C. VAUGHAN, Chicago, had an extra fine exhibit of hyacinths, tulips, narcissus, and *Lilium candidum*. Some of the varieties of hyacinths were exceptionally fine; noticeable amongst them were *Hermann*, *Norma*, *Cosmos*, *Grand Maître* and *Czar Peter*. This display was one of the features of the show.

R. J. HALLIDAY,

W. C. SMITH,

WALTER W. COLES,

JAMES TAPLIN,

AVERY GALLUP,

Committee.

REPORT OF COMMITTEE ON FLORISTS' REQUISITES AND SUPPLIES.

Exhibit of EDWARD JANSEN, of New York.—A most elegant display of floral designs and floral baskets, both ancient and modern, embracing many novelties which are worthy of commendation to the Society, and the committee recommend that Mr. Jansen be given the highest award for artistic taste and thorough workmanship, as well as for originality of designs.

This committee also recommend a further award to Mr. Jansen for his fine display of mounted white doves, immortelles, letters, and emblems of immortelles, monograms, etc.

Exhibit of MARSCHUETZ & BACHARACH, of Philadelphia.—An extensive display of straw baskets of all descriptions; also a fine display of gilt and other baskets and designs, sheaves of wheat, colored grasses, immortelles, letters and emblems of immortelles, bouquet holders, and bouquet papers. Your committee recommend a special mention of this very complete display.

Exhibit of F. E. McALLISTER, of New York.—An extensive and general display of flower-baskets of various descriptions, and a full supply of grasses, mosses, immortelles, bouquet papers, and general florists' supplies.

Exhibit of C. S. FORD, Jr., Philadelphia: A first-class display of immortelles, letters, words, and emblems.

Exhibit of A. HERRMANN, of New York.—A limited but choice display of samples of fancy and other grasses; also wreaths of grasses and everlastings tastefully arranged. Also a very fine display of letters, monograms, and emblematic designs; and this committee recommend a special award for superior workmanship.

Exhibit of the PHILADELPHIA IMMORTELLE DESIGN COMPANY.—This exhibit is really superb, and certainly the finest and richest display of funeral and memorial designs ever exhibited. The committee wishes to call special attention to the unique and artistic workmanship.

Exhibit of M. M. BAYERSDORFER & Co., of Philadelphia.—The largest display, and a full line of florists' requisites, consisting of willow baskets of all descriptions, white and gilt baskets and stands, straw baskets, sheaves of wheat, colored and other grasses, immortelles and immortelle letters, bouquet holders, white doves, etc. Your committee wish to call special attention to this exhibit for the simple and business-like manner in which the various samples were arranged; and therefore, they commend this business-like method to all future exhibitors upon like occasions. The committee recommend an award of merit to Messrs. Bayersdorfer & Co.

Exhibit of ERNST KAUFMANN, Philadelphia.—A very fine general display of flower baskets, including some novelties worthy of notice.

Exhibit of KOEHLER BROTHERS, Nicetown, Philadelphia.—A very tasteful display of white doves and mounted peacocks for florists' use, deserving of special mention.

W. C. KECK, of Brooklyn, N. Y., exhibits a complete assortment of immortelle letters, inscriptions, and names.

A. T. CEFREY, Boston, Mass., exhibits immortelle letters and inscriptions, ready for florists' use, of superior workmanship.

The HENDERSON-ACHERT Co., Cincinnati, Ohio, has on exhibition a large sheet of engravings of various floral designs.

Exhibit of WHILLDIN & Co., Philadelphia.—A substantial display of flower-pots, seed pans, and hanging baskets of pottery. Your committee call the atten-

tion of the Society to rim-pots, and the advantages which they have in packing and nesting.

Exhibit of JACOB C. CASSEL, Philadelphia.—A very fine display of imitation wood pottery or terra-cotta ware, consisting of vases, pedestals, logs, and hanging baskets, fancy flower-pots, window boxes, etc.

Exhibit of A. H. HEWS & CO., North Cambridge, Massachusetts.—This is certainly the best display of natural clay-colored pottery, consisting of novelties in vases for decorative purposes and cut flowers; also, a fine exhibit of samples of flower-pots, which are highly recommended for their good finish and their durability. This committee recommend an award to them of the first order.

Exhibit of GALLOWAY, GRAFF & CO., Philadelphia.—This is really a handsome display of fancy pottery and fine art. In addition to the imitation of wood ware, this firm exhibits the now celebrated "Limoges" ware, and this committee feel it their duty to recommend an award to this very artistic ware, of a first-class certificate of the Society, as this is the first of this highly artistic pottery manufactured in this country. It was, until quite recently, imported from Europe at fabulous prices. The committee call special attention to this exhibit.

JOSEPH KIFT & SON, of Philadelphia, exhibited a porous fern vase and bracket, which the committee highly recommended as a valuable new article, well adapted for ferns for house culture, and an excellent thing on which to grow *Platyceeriums*, etc.

ROSE MANUFACTURING CO., of New York, exhibit a tobacco soap insecticide.

AUSTRALIAN GARDEN-WASH CO., of New York, also have on exhibition an assortment of insecticides.

BENJAMIN CHASE, JR., Derry, N. H., has an exhibit of pot-labels and stakes of excellent finish.

FISH & GIBSON, Whitney's Point, N. Y., also show insecticides.

H. A. SEIBRECHT,
Chairman of the Committee.

REPORT OF COMMITTEE ON LITHOGRAPHS, PRINTING, ETC.

J. HORACE MCFARLAND, of Harrisburg, Pa.—This exhibit of printing for florists' use, catalogues, cards, etc., is of the highest perfection in the art of printing—clearness, neatness, and artistic display are marked characteristics of the work, and the illustrations are of a very high order.

MESSRS. BEATTY & CO., of New York, exhibit a collection of colored lithographs worthy the highest praise, they being especially adapted for florists' use, while the drawings are remarkably accurate, and the colors true to nature and happily blended. A collection of chrysanthemums excels anything which has come under your committee's notice in this art, as regards color, form, and perspective, most truly representing the respective flowers they are intended to delineate.

C. L. ALLEN,
WILLIAM F. DREER.

REPORT OF COMMITTEE ON GREEN-HOUSE STRUCTURES AND APPLIANCES.

DANIEL B. LONG, of Buffalo, New York, exhibits models of a flower-box for shipping cut flowers. It is a very perfect box for said purpose, but probably too costly for extensive use.

J. H. IVES, Danbury, Connecticut, exhibits a puttying machine, which your committee would hesitate to give an opinion about until actual trial had been given it on a green-house roof.

WILLIAMS & SONS, Batavia, Illinois, exhibit a point-driver, in regard to which your committee hesitates on giving an opinion without a practical trial.

HERRMANN PERLICH, 183 Broadway, Baltimore, Maryland, exhibits a fumigator. Your committee, while believing it to be a useful article, have found, in actual practice, owing to the material of which it is made, that it rusts out very rapidly, and would advise that it be made of more durable material.

THE SUMMIT MANUFACTURING COMPANY, Summit, Union county, New Jersey, exhibits a patent carrier, which may do very well when used for carrying peaches and baskets; but when applied to flower-pots, we should say it was of no practical value.

J. M. GASSER, Cleveland, Ohio, exhibits a patent zinc joint for glazing, which your committee believe is well worthy of a trial. He also exhibits an ingenious contrivance for warning the florist when the temperature of his houses falls too low.

CALEF MANUFACTURING COMPANY, 293 Broadway, New York, exhibits spades, scoops, and shovels. Your committee, some of which have had a practical trial with the shovel, but not the spade, have found, though from only a limited trial, that it possesses no advantage for shoveling purposes, and could not be as useful for digging purposes as the ordinary spading fork. We, however, would not condemn it without further trial.

The LOCKLAND LUMBER COMPANY, of Lockland, Ohio, exhibit specimens of cypress sash-bars, which are claimed to be very durable.

ROBERT T. DEAKIN & CO., of Philadelphia, exhibit a good line of brass green-house syringes and pumps, which are deserving of special mention.

B. F. GOODRICH & CO., Akron, Ohio, exhibit rubber hose, suitable for green-house use, and of excellent quality.

MANLY & COOPER MANUFACTURING CO., Philadelphia, show hot-bed frames and sash of good workmanship.

F. A. SMITH, of Philadelphia, shows green-house sash-bars.

JOSEPHUS PLENTY, New York, exhibits a section of a green-house showing the Helliwell system of glazing, which is very strong and durable.

JOHN N. MAY, of Summit, N. J., exhibits a model green-house, illustrative of his essay, which is very complete, and well worthy close attention from those who contemplate building.

J. EVANS, Richmond, Indiana, exhibits a patent ventilating apparatus. Several members of your committee have seen and examined the said apparatus at Messrs. Craig & Brothers' place, and do not think it superior to those already in use, for the reasons that it works hard, and when the handle is let go, in lowering, it drops with increasing speed, thus making it liable to break or shake out the glass of the ventilators, as well as other parts of the house.

J. D. CARMODY, Evansville, Indiana, exhibits a sectional water heater. None of your committee having had a practical test of this boiler, decline to give an opinion on it.

THOMAS W. WEATHERED, of New York, exhibits his well-known hot-water boiler, which has many good points.

DENYS ZIRNGIEBEL, Needham, Mass., shows a model of a boiler for hot water under pressure.

C. W. JENNINGS, Philadelphia, shows a well-designed valve for use in hot-water circulations.

DAVID CLIFFE, Germantown, exhibits rubber packing for hot-water pipes.

PETER HENDERSON,
JOHN HENDERSON,
JOHN H. TAYLOR.

REPORT OF COMMITTEE ON CUT FLOWERS.

HENRY A. DREER, Philadelphia, exhibits a collection of splendid strains of petunias, verbenas, and hollyhocks, showing great improvement in these plants.

OSCAR R. KREINBERG, Philadelphia, shows a collection of handsome pansies.

SAMUEL C. MOON, Morrisville, Pa., exhibits a splendid assortment of named gladioli, which attracts much attention. He also has on exhibition a plant of *Exochorda grandiflora*, a meritorious hardy shrub.

CONRAD KIRCHNER, Philadelphia, shows some fine seedling carnation blooms.

JOHN STEWART, Wilmington, Del., exhibits a collection of cut verbenas.

PETER HENDERSON, New York, exhibits cut asters, petunias, geraniums, and anemiss, all of much merit.

V. H. HALLOCK, SON & THORPE, East Hinsdale, N. Y., exhibit a large collection of gladioli of great beauty, covering many of the finest named varieties known.

W. K. HARRIS,
Chairman Committee.

REPORT OF COMMITTEE ON MR. LE MOULT'S EXHIBIT AND LECTURE.

The committee would especially commend the designs exhibited by Mr. A. LeMoult, of New York, for the great attention which had been paid to detail, as every part of the work seemed to be wrought out and finished in good taste. The first design displayed was made of immortelles, and represented a horse saddled and bridled. It presented a natural appearance.

The yacht *Galatea* was very graceful, and was a good imitation of a vessel under full sail with a good breeze.

The gondola, with the monogram of the Society on the sail, was also artistically arranged, and would make a capital design for the center of a dinner-table.

The original design representing "a wheel of fortune," flying through the air, bearing a cornucopia, was a very effective piece of work, and the rapidity with which it was executed was remarkable, only one hour and a half being consumed in its construction, during which time the frame was made, mossed, and all the flowers stemmed, as well as arranged.

The committee would especially recommend the use of growing plants, as seen at the base of this design. Growing plants and ferns can often be used in this way to take the place of cut-flowers when the latter are scarce, and be made to produce as good, if not better, effect, and will continue beautiful long after the cut-flowers have wilted.

The committee recommends that the thanks of this Society of American Florists be tendered to Mr. LeMoult for his interesting and instructive address given in connection with his elaborate display.

ALEXANDER MURDOCH,
ROBERT KIFT,
FRANK HUNTSMAN,
J. M. GASSER,
JOHN WHITE,

Committee.

LIST OF MEMBERS FOR 1886-1887.

Alabama.

Pfingstal, Joseph, Montgomery.
Reed, C. H., Birmingham.

Zimmer, Alfred, Montgomery.

California.

Sievers, J. H., 25 Post street, San Francisco.

Colorado.

Gallup, Avery, Denver.

Connecticut.

Dassick, E. C., Bridgeport.
Dickerman, George A., New Haven.
Geduldig, G., Norwich.
Horan, James, Bridgeport.
Ives, J. H., Danbury.

Lines, C. P., 23 Beers street, New Haven.
McCrone, Robert, Thompsonville.
Reek, John, Bridgeport.
Whiting, A., Franklin avenue, Hartford.

Delaware.

Bayliss, L. E., Wilmington.
Brown, J. L., Wilmington.
Grant, Henry, Wilmington.
Hargardine, R. W., Felton, Kent county.

Hayden, Matthew, Wilmington.
Sparks, Charles E., Wilmington.
Stewart, John, Wilmington.

District of Columbia.

Adams, William W., 335 Missouri avenue, Washington.
Durfee, Benjamin, Washington.
Evans, Frank M., Washington.
Field, George, Lincoln avenue, Washington.
Field, Thomas, Lincoln avenue, Washington.
Freeman, J. R., Thirteenth and E streets, N. W., Washington.
Gude, A., Jr., Washington.
Hale, C. F., Washington.

Pollock, George, 241 Centre Market, Washington.
Pfister, Henry, gardener White House, Washington.
Smith, William R., Botanic Gardens, Washington.
Studer, Nicholas, 421 Centre Market, Washington.
Schmidt, Louis, 317 Twelfth street, N. W., Washington.
Saul, John, 621 Seventh street, N. W., Washington.

Georgia.

Kiessling, G., Savannah.
Meyer, Fritz R., Savannah.

Oelschig, A. C., Savannah.
Wackendorff, E., Atlanta.

Illinois.

Anthony, J. T., Chicago.
 Balmer, A., Danville.
 Calvert, Edward S., Lake Forest.
 Calvert, Frank, Lake Forest.
 Carten, Theodore, Wright's Grove.
 Clark, Sidney, Lake Forest.
 Donovan, R. J., Havelock.
 Forster, John S., Box 392, Evanston.
 Gardener, Mrs. Sarah P., Hinsdale.
 Grant, G. L., 54 La Salle street, Chicago.
 Hay, Charles E., Springfield.
 Harting, Charles, Wright's Grove.
 Heintz, Joseph, Jacksonville.
 Hunt, M. A., Wright's Grove.
 Keenan, T. F., 42 La Salle street, Chicago.
 King, F. J., Ottawa.

Kropf, John W., Collinsville.
 Lane, John, Chicago.
 Law, P. F., Turner Park.
 Newitt, Alexander, Millard avenue, Chicago.
 Pepper, S., Belvidere.
 Phelps, H. L., Springfield.
 Riessig, Charles, Chicago.
 Sawyer, A. W., Sycamore.
 Scott, D. W., Galena.
 Silliman, J. C., Chicago.
 Vaughan, J. C., 42 La Salle street, Chicago.
 Van Dyke, Mrs., Shellyville.
 Viberts, W. A., 16 Thirty-eighth street, Chicago.
 Williams, W. H., Batavia.
 Williams, C. O., Batavia.

Indiana.

Carmody, J. D., Evansville.
 Dorner, Frederick, Lafayette.
 Heintz, John G., Terre Haute.
 Hill, E. G., Richmond.
 Palmer, Mrs. F. H., La Porte.

Rieman, Charles, Indianapolis.
 Teas, E. Y., Dunreith.
 Troxell, A., Knightstown.
 Wade, F. H., Evansville.
 Wiegand, A., Indianapolis.

Iowa.

Cole, C. C., Des Moines.
 Green, W., Davenport.
 Harkett, W. A., Dubuque.
 Higley, H. G., 41 Second avenue, Cedar Rapids.

Hoffmeister Bros., Fort Madison.
 Kellenberger, John U., Fort Dodge.
 Kramer, Judson H., Marion.
 Temple, John T., Davenport.

Kansas.

Bristol, Miss E. R., Topeka.

Kirkpatrick, Archie, Leavenworth.

Kentucky.

Bell, W. S., Lexington.
 Fries, John, Covington.
 Jackson, Thomas, Covington.
 Morat, Francis, Ormsby avenue, Louisville.
 Nanz, C. J., Owensborough.

Power, Edmond, Frankfort.
 Schulz, Jacob, Cave Hill, Louisville.
 Walker, William, Highland and Everett avenues, Louisville.

Louisiana.

Eblen, John, Sixth street, New Orleans.

Luciens, F., White st. bet. St. Peter and Toulouse sts., New Orleans.

Maine.

Dennett, Miss N., Brunswick.

Moses, F. H., Bucksport.

Maryland.

Barger, Frederick G., 208 Green Mountain avenue, Baltimore.

Cook, John, 74 N. Charles street, Baltimore.

Dahoff, Mrs. J. W., North street, Hagerstown.

Donn, John, Baltimore.

Eichelberger, H., 188 Madison avenue, Baltimore.

Feast, J. E., Baltimore.

Frazier, William, 277 E. Baltimore street, Baltimore.

Grant, Donald S., Govanstown, Baltimore county.

Halliday, William J., Liberty Road, Baltimore.

Halliday, Robert J., Baltimore.

Harold, F. W., Salisbury.

Herman, Charles, Frederick.

Hess, Conrad, Waverly.

Millman, F. X., Cumberland.

McCormick, John, 74 W. Charles street, Baltimore.

Pentland, James, Baltimore.

Thomas, Mrs. Mary J., 83 N. Charles street, Baltimore.

Massachusetts.

Adams, C. Thompson, West Medway.

Breed, E. W., Clinton.

Brydon, J., Yarmouthport.

Barrett, E. C., 57 Haskinson street, Malden.

Bock, Wm. A., North Cambridge.

Chandler, G. F., South Lancaster.

Elliott, William, Kendrick street, Boston.

Fisher, F. C., South Sudbury.

Gale, W. F., Springfield.

Gleason, F. B., Marlboro'.

Herrick, N. J., Springfield.

Linnell, J. W., 14 Chapman Place, Boston.

McCarthy, N. F., 9 Park street, Boston.

Meade, Thomas H., Dorchester.

Montgomery, Alexander, Natick.

Moss, H. B., Natick.

O'Brien, James, Jamaica Plains.

Patten, Marcellus, Lowell.

Palmer, Frederick, Brookline.

Shaw, E. D., Holyoke.

Sheppard, E., Lowell.

Stewart, William J., 67 Bromfield street, Boston.

Sully, George H., Springfield.

Tailby, Joseph, Wellesley.

Ward, J. M., Peabody.

Welch, P., Tremont street, Boston.

White, John, Pittsfield.

Wood, W. R., West Newton.

Zirngiebel, D., Needham.

Michigan.

Boehme, A., Battle Creek.

Chapman, F. A., Grand Rapids.

Hancock, J. G., Grand Haven.

Hughes, Wellington, Hillsdale.

Jones, D. C., Detroit.

Mann, Harry, Lansing.

Smith, D. P., Flint.

Sullivan, J. Frederick, 985 Gratiot avenue, Detroit.

Taplin, Stephen, Detroit.

Minnesota.

Blumm, Edward, St. Paul.

Mendenhall, R. J., Minneapolis.

Smith, C. A., Minneapolis.

Swanson, A. S., State Reform School, St. Paul.

Wunder, John, Winona.

Missouri

Armstrong, Luther, Kirkwood.
 Berdan, Albert, 2724 W. Grand
 avenue, St. Louis.
 Brown, Daniel S., 2311 S. Thir-
 teenth street, St. Louis.
 Brown, R. S., Kansas City.
 Connor, Charles, 2742 Olive street,
 St. Louis.
 Davison, James, 708 Olive street,
 St. Louis.
 Ellison, W., 2602 Olive st., St. Louis.
 Jordan, J. M., 706 Olive street, St.
 Louis.
 Juengel, C. A., 1843 Linn street,
 St. Louis.

Kuehn, C. A., 1432 Morgan street,
 St. Louis.
 Michel, Henry, 708 Olive street,
 St. Louis.
 Neilson, Hans, St. Joseph.
 Sanders, C. C., 1214 Olive street,
 St. Louis.
 Schray, William, 4104 Pennsyl-
 vania avenue, St. Louis.
 Waldbert, Alexander, cor. Grand
 avenue, St. Louis.
 Young, William, St. Louis.
 Young, James, St. Louis.

Nebraska.

Donaghue, A., Omaha.

New Jersey.

Asmus, Rudolph, New Durham.
 Bishop, William R., Burlington.
 Binstead, George W., Summit.
 Boch, Jerome, Burlington.
 Bridgeman, Thomas, Ramseys.
 Butler, C., Summit.
 Carre, W. P., Mantua.
 Chew, Charles W., Glassboro'.
 Chinnick, W. J., Trenton.
 Collins, Lew, Bordentown.
 Cook, John A., Beverly.
 Cosgrove, Frank, Madison.
 Dahl, Carl, Mt. Holly.
 Denman, C. S., Summit.
 Edwards, Theodore, Bridgeton.
 Esler, J. G., Saddle River.
 Esler, A., Saddle River.
 Field, G. T., Middletown.
 Gardiner, John G., Jobstown.
 Gates, Nicholas, Summit.
 Gates, George, Summit.
 Goode, James, Summit.
 Goble, Frederick, Verona.
 Hancock, L. R., Burlington.
 Henderson, Peter, Jersey City.
 Henderson, Charles, Jersey City.

Hicks, J. M., Summit.
 Jones, Thomas, Short Hills.
 Leonard, J. H., Iona.
 Leonard, James L., Iona.
 Lukens, J. H., Burlington.
 May, John N., Summit.
 Marple, C. C., Camden.
 McDonald, Robert, Summit.
 McGall, H. J., Orange.
 McMahon, Frank, Seabright.
 Miller, John, West Hoboken.
 Monahan, James, Madison.
 O'Neil, Thomas, Long Branch.
 Roehrs, Julius, Rutherford.
 Schmidt, P. A., Long Branch.
 Schweinhagen, C., Camden.
 Schultz, Alexander, Phillipsburg.
 Sturtevant, E. D., Bordentown.
 Taplin, James, Maywood.
 Thurston, W. J., Ramseys.
 Towell, Joseph, Patterson.
 Turnley, C. William, Camden.
 Vogt, William, Camden.
 Ward, P. J., Bloomfield.
 Witheridge, Charles, Newark.

New York.

- Allen, W. S., 940 Broadway, New York.
- Allen, C. L., Garden City.
- Allen, J. W., Hudson.
- Anderson, Charles, Flushing, L. I.
- Belding, George S., Middletown.
- Benz, Albert, Douglaston.
- Bennett, W. G., Flatbush.
- Bennett, A. W., Flatbush.
- Benedict, George H., Utica.
- Bussard, Henry, Yonkers.
- Burke, F. H., Long Island City.
- Buchanan, Isaac, 407 Fifth avenue, New York.
- Childs, J. L., Queens.
- Cosgrove, J. A., Sparkhill.
- Colton, George T. N., 679 Broadway, New York.
- Crosman Bros., Rochester.
- Dean, James, Bay Ridge.
- Dingwall, John, 1020 Broadway, Albany.
- Ellwanger & Barry, Rochester.
- Falconer, William, Glen Cove.
- Ferris, J. D., 120 Liberty street, New York.
- Fish, J. G., Whitney's Point.
- Gordon, Frederick, 71 Broadway, New York.
- Gross, George, 17 S. William street, New York.
- Hammond, James A., 51 W. Thirtieth street, New York.
- Hamilton, F., 290 Bay st., Stapleton.
- Hall, W. W., E. Holley, Hudson.
- Hart, James, 117 W. Thirtieth street, New York.
- Hermann, A., 413 E. Thirty-fourth street, New York.
- Henshaw, Samuel, New Brighton, Staten Island.
- Hittman, Peter B., Box 85, E. New York.
- Horan, Edward C., 905 Broadway, New York.
- Howland, T. A., 401 Wells' Building and 18 Broadway, New York.
- Hunter, F. D., 51 W. Thirtieth street, New York.
- Jansen, E., 154 W. Nineteenth street, New York.
- Joosten, C. H., 22 New Church street, New York.
- Kadletz, John, Stapleton, Staten Island.
- Keller, J. N., Bay Ridge.
- Kellar, Samuel, 122 W. Twenty-fifth street, New York.
- Keelar, L. J., Rochester.
- Kelsey, F. W., 208 Broadway, New York.
- Kricks, W. C., 950 Gates avenue, Brooklyn.
- Krombach, Charles, Brooklyn.
- Long, D. B., 57 Niagara street, Buffalo.
- Lord, F. A., Irvington.
- Lorenze, George, Astoria.
- Matthews, William, Utica.
- Marc, Charles J., Woodside.
- Mensing, C. J. S., Rochester.
- Meissner, B., Flatbush.
- Messeburg, Gus., Flatbush.
- Messeburg, Gus., Jr., Flatbush.
- Mills, M. H., Binghamton.
- Miller, E. S., Wading River.
- McAllister, F. E., 22 Dey street, New York.
- Morgan, James, Auburn.
- Nilson, William, Woodlawn.
- Nutt, S. A., 224 W. Forty-first street, New York.
- Parsons, Edward W., West Chester.
- Peck, John B., Rye, West Chester county.
- Pierson, F. R., Tarrytown.
- Pickle, Samuel, 124 S street, New York.
- Plenty, Joseph, 144 Pearl street, New York.
- Quinlan, P. R., 199 W. Genesee street, Syracuse.
- Ross, Duncan, 525 Fifth avenue, New York.
- Roehrs, Theodore, 153 W. Thirty-first street, New York.
- Rölker, J. E., 44 Dey street, New York.

New York—Continued.

Salter, R. G., Rochester.
 Salter, A. H., Rochester.
 Savage, George, care W. S. Kimball, Rochester.
 Scollay, John A., 74 Myrtle avenue, Brooklyn.
 Scollay, U. G., 74 Myrtle avenue, Brooklyn.
 Schultheis, T., College Point.
 Schlegel, Frederick, 260 South avenue, Rochester.
 Scott, William, Buffalo.
 Shuphelt, R. E., Chatham.
 Siebrecht, Henry A., 409 Fifth avenue, New York.
 Siebrecht, Louis, East Hinsdale.
 Siebrecht, W. H., Astoria.
 Smith, H. W., 66 Cortlandt street, New York.

Steffens, N., 335 E. Twenty-first street, New York.
 Stetson, George T., Port Jervis.
 Taylor, John H., Bayside.
 Terwilliger, S. F., Saratoga Sp'ngs.
 Thorpe, John, East Hinsdale.
 Thomman, Gustav, 462 Tenth avenue, New York.
 Vick, Frank H., Rochester.
 Vick, Edward H., Rochester.
 Wall, H. M., 192 West street, New York.
 Wagner, R. H., 22 Vesey street, New York.
 Weathered, T. W., 46 Marion street, New York.
 Weimer, E. W., Mt. Vernon.
 Wilson, W. C., Astoria.
 Young, Thomas, Jr., New York.

North Carolina.

Lamb, James M., Fayetteville.
 Lamb, George P., Wilmington.

Stienmetz, W., Raleigh.

Ohio.

Behrens, H., Middletown.
 Bolia, William, 1047 Colerain avenue, Cincinnati.
 Bonsall, Joseph E., Salem.
 Brosius, A. D., Wooster.
 Corbett, George, College Hill.
 Congdon, A. R., Oberlin.
 Dunlap, John, Queen's Hotel, Toronto.
 Eadie, Andrew, Cleveland.
 Evans, Maurice, Columbus.
 Gasser, J. M., Cleveland.
 George, Robert, Painesville.
 Glins, Henry, 639 Vine street, Cincinnati.
 Glens, Joseph, Cummins ville.
 Graham, Adam, Cleveland.
 Harrison, Bert. T., Painesville.
 Harrison, J. J., Painesville.
 Heidl, G. A., Toledo.
 Hippard, E., Youngstown.
 Huntsman, Frank, Walnut street, Cincinnati.

Imlay, John D., Zanesville.
 Jaynes, Harry C., 84 Euclid avenue, Cleveland.
 Jackson, S. S., Cincinnati.
 James, A. C., Mt. Healthy.
 Kayser, Karl, Newburg.
 Koethen, E. L., Zanesville.
 Lamborn, Leroy, Alliance.
 Loder, John, Hamilton.
 McCullough, A., 134 Walnut street, Cincinnati.
 McFaddan, F. T., 119 Broadway, Cincinnati.
 McKinney, W. H., 187 and 189 W. Fourth street, Cincinnati.
 Mitchell, C. L., P. O. Box 188, Cincinnati.
 Miller, Mrs. E., Ironton.
 Murphy, Roger, Urbana.
 Murphy, George C., Urbana.
 Murphy, Robert J., Beechwood.
 Nolan, W. C., Cincinnati.
 Paddock, E. J., Newberg.

Ohio—Continued.

Penney, John M., Newark.
 Pentland, Francis, Lockland.
 Peterson, Julius A., 195 W. Fourth street, Cincinnati.
 Pierce, L. P., Tallmadge.
 Reeser, C. A., Springfield.
 Ritter, Herman, Dayton.
 Romans, John B., 24 N. High street, Columbus.
 Schaefer, R., Denham street, Fairmount, Cincinnati.
 Schramm, B., Toledo.
 Smith, H. P., Piqua.

Stearns, A. M., Lockland.
 Sunderbruch, H. L., 200½ W. Fourth street, Cincinnati.
 Swaby, R. W., O. S. and S. O. Home, Xenia.
 Underwood, J. N., Cheviot.
 Walz, Frederick, Cumminsville.
 Wills, Bert F., Akron.
 Wilson, John, 707 Superior street, Toledo.
 Wilson, John, College Hill.
 White, Miss Annie, Salem.
 Wheeler, H. M., Perry.

Pennsylvania.

Alburger, E. F., Ridge avenue and Huntingdon street, Phila.
 Anderson, George, Fifty-second and Woodland avenue, Phila.
 Ander, John E., Doylestown.
 Ball, C. D., Holmesburg.
 Barrows, James, Wakefield street, Germantown.
 Bader, John, Allegheny.
 Banyard, Edward, Thirtieth street and Ridge avenue, Phila.
 Ballantine, J. D., 714 S. Eleventh street, Philadelphia.
 Battles, H. H., 1204 Chestnut street, Philadelphia.
 Bayersdorfer, H., 56 N. Fourth street, Philadelphia.
 Bearn, David, 2311 Wallace street, Philadelphia.
 Becker, Jacob, Fifty-second and Market streets, Philadelphia.
 Bell, W. T., Franklin.
 Bender, George J., Lewisburg.
 Billger, William A., 5670 Germantown avenue, Philadelphia.
 Bissett, Miss Annie A., 333 Tasker street, Philadelphia.
 Blanc, A., 314 N. Eleventh street, Philadelphia.
 Brogan, John, Fifty-fourth and Woodland avenue, Philadelphia.
 Brechemin, W. K., 935 S. Second street, Philadelphia.

Burton, John, Wyndmoor, Chestnut Hill, Philadelphia.
 Burpee, W. Atlee, 475 N. Fifth street, Philadelphia.
 Cassell, J. C., 1207 Columbia avenue, Philadelphia.
 Cartledge, A. B., 1514 Chestnut street, Philadelphia.
 Cartledge, Thomas, 1514 Chestnut street, Philadelphia.
 Campbell, J. H., 3601 Germantown avenue, Philadelphia.
 Childs, Thomas H., 725 Filbert street, Philadelphia.
 Cliffe, David, Johnson street, Germantown.
 Clark, G. R., Scranton.
 Colton, E. B., Tenth and Chestnut streets, Philadelphia.
 Cochrane, W., 211 Price street, Philadelphia.
 Colfesh, J. William, Fifty-third and Woodland avenue, Phila.
 Coles, W. W., Lansdowne.
 Copper, John, Newtown, Bucks county.
 Connelly, John J., Bryn Mawr.
 Connell, Benjamin, West Grove.
 Conner, D. T., Chester.
 Crawford, W. N., 106 S. Sixteenth street, Philadelphia.
 Craig, Robert, Forty-ninth and Market streets, Philadelphia.

Pennsylvania—Continued.

- Crall, C. S., Monongahela City.
 Crawford, Robert, Jr., 235 S. Eleventh street, Philadelphia.
 Curtin, D., Twentieth street and Nicetown avenue, Philadelphia.
 Curwin, John, Jr., Villa Nova, Philadelphia.
 Dewitt, Thomas, Bristol.
 Dick, John, Jr., Fifty-second and Woodland avenue, Philadelphia.
 Dillon, J. L., Bloomsburg.
 Dorrance, B. F., Wilkesbarre.
 Downs, Alexander, Ridge and Lehigh avenues, Philadelphia.
 Dreer, William F., 714 Chestnut street, Philadelphia.
 Dreer, Mrs. H. A., Philadelphia.
 Edwards, W. L., Moore's P. O.
 Edwards, Odin R., 1029 Chestnut street, Philadelphia.
 Eisele, C., 1500 N. Eleventh street, Philadelphia.
 Eldridge, W. M., Wilkesbarre.
 Elliott, Benjamin A., Pittsburgh.
 Engler, Henry, Forty-seventh st. and Lancaster avenue, Phila.
 Evans, C. F., Rowlandville, Philadelphia.
 Evans, George C., Rowlandville, Philadelphia.
 Evans, Frank M., Washington.
 Farson, D. D. L., Fiftieth street and Westminster avenue, Phila.
 Fancourt, W. F., Thirty-fourth street and Ridge avenue, Phila.
 Fancourt, George E., Wilkesbarre.
 Fergusson, Miss, Ridge and Lehigh avenues, Philadelphia.
 Fergusson, F. M., Ridge avenue, Philadelphia.
 Fergusson, Robert, Ridge avenue, Philadelphia.
 Finley, J. G., 1020 Arch street, Philadelphia.
 Fitzgerald, William J., Bryn Mawr.
 Foulds, Thomas, Hoyt P. O., Montgomery county.
 Fries, J. A., Bethlehem.
 Frederick, William, Jenkintown.
 Garrow, H. S., 47 Federal street, Allegheny.
 Gebhard, William, Germantown.
 Geiger, H. C., 614 Chestnut street, Philadelphia.
 George, James, Supt. Allegheny Cemetery, Pittsburgh.
 German, Edward, Altoona.
 Giles, J. H., Reading.
 Graham, Hugh, Seventeenth and Thompson streets, Phila.
 Graham, William, Seventeenth and Thompson streets, Phila.
 Grigg, C. H., 1204 Chestnut street, Philadelphia.
 Haubert, John, Belmont, Philadelphia.
 Harris, W. K., Fifty-fifth and Woodland avenue, Phila.
 Haenze, C. A., Philadelphia.
 Hanson, William H., 1731 Filbert street, Philadelphia.
 Habman, F., Harrowgate Lane, Philadelphia.
 Hacker, William, Philadelphia.
 Heron, Richard, 1735 Chestnut street, Philadelphia.
 Herr, Albert M., Lancaster.
 Heacock, Joseph, Jenkintown.
 Hillborn, Watson T., Newtown, Bucks county.
 Hoskins, G. H., Reading.
 Hoffmeister, Christian, Jumonville.
 Hutton, James, Righter street, Lower Roxborough, Phila.
 Hunter, C. F., 5550 Lansdowne avenue, Philadelphia.
 Hughes, J. M., Bryn Mawr.
 James, H. Q., Altoona.
 Jennings, C. W., Olney, Philadelphia.
 Jennings, J. W., Olney, Philadelphia.
 Jones, A. E., Eighth and Arch streets, Philadelphia.
 Joyce, William, Philadelphia.
 Kaufmann, Ernst, Fourth street, above Race, Philadelphia.

Pennsylvania—Continued.

- Kahlert, C. W., 1514 Chestnut street, Philadelphia.
- Kemp, J. G., Asylum Road, Philadelphia.
- Kift, Robert, 1721 Chestnut street, Philadelphia.
- Kift, Joseph, West Chester.
- Kirchmer, Conrad, Twenty-first street and Allegheny avenue, Philadelphia.
- Koehler, Julius, Frankford, Philadelphia.
- Koehler, W. H., 4000 Germantown avenue, Philadelphia.
- Krayer, J. E., Media.
- Krales, F. S., 543 Belgrade street, Philadelphia.
- La Roche, M. F., Thirteenth and Chestnut streets, Philadelphia.
- Lamb, Charles P., Wyndmoor, Chestnut Hill, Philadelphia.
- Landes, Lemon, Lancaster.
- Lonsdale, Edwin, Wyndmoor, Chestnut Hill, Philadelphia.
- Lucking, Mrs. Kate E., Fifty-fourth street and Fairmount avenue, Philadelphia.
- Lutz, August, 311 N. Thirty-second street, Philadelphia.
- Marchuetz, Joseph, 25 N. Fourth street, Philadelphia.
- Marvin & Wagle, 387 and 389 Main street, Wilkesbarre.
- Maybury, Thomas, Pittsburgh.
- Maule, William H., 1713 Filbert street, Philadelphia.
- Makin, E., Paschalville, Philadelphia.
- Mack, Christopher, 321 S. Twentieth street, Philadelphia.
- Marot, C. H., 814 Chestnut street, Philadelphia.
- Mernaw, William, Sixth and Somerset streets, Philadelphia.
- Meyers, Jacob, Lancaster.
- Meehan, W. E., Germantown, Philadelphia.
- McCarthy, T. J., Ridge and Lehigh avenues, Philadelphia.
- McClintock, Logan E., Harrisburg.
- McFarland, J. Horace, 107 and 109 Cumberland st., Harrisburg.
- McMurray, Joseph, 1502 Master street, Philadelphia.
- Michell, H., 714 Chestnut street, Philadelphia.
- Mish, D. Hammond, cor. Fourth and Chestnut streets, Lebanon.
- Moore, G. S., 2259 Franklin street, Philadelphia.
- Moon, S. C., Morrisville.
- Myers, Thomas J., Jr., 1173 S. Ninth street, Philadelphia.
- Myers, F. H., 1173 S. Ninth street, Philadelphia.
- Myers, J. H., Altoona.
- Murdock, Alexander, Pittsburgh.
- Murdock, William, Pittsburgh.
- Murdock, F. C., Pittsburgh.
- Nisbet, John, 1735 Chestnut street, Philadelphia.
- Nitterhouse, J. F., Waynesboro'.
- O'Brien, M. J., Sharon.
- Otter, Harold, Doylestown, Bucks county.
- Pegge, Henry, Howard and Somerset streets, Philadelphia.
- Perkins, John J., Sixteenth street, Philadelphia.
- Pennock, C. E., 30 S. Sixteenth street, Philadelphia.
- Petterson, Gustave, Harrisburg.
- Pennock, A. L., Lansdowne.
- Price, C. S., Lansdowne.
- Ramsden, J. B., Morton.
- Reist, Nathe E., Limerick.
- Reig, John, Jenkintown.
- Reineman, E. C., Allegheny.
- Rice, M., Eighth and Arch streets, Philadelphia.
- Rimby, Horace, Collegeville.
- Robb, R. R., Jr., Philadelphia.
- Rohrer, A. D., Lancaster.
- Rohrer, H. D., Lancaster.
- Robertson, Thomas, 223 Fairmount avenue, Philadelphia.
- Roberts, C. C., Philadelphia.

Pennsylvania - Continued.

Rupp, Henry S., Shiremantown.
 Savage, John, 43 Brown street,
 Philadelphia.
 Scott, Alexander B., Nineteenth
 and Catharine streets, Phila.
 Schroyer, George W., Lancaster.
 Schroyer, H. A., Lancaster.
 Schmidt, Joseph, Harrisburg.
 Schafmeister, John, Harrisburg.
 Sheetz, Peter E., Kensington ave-
 nue, Philadelphia.
 Shelmire, W. H., Avondale.
 Shumard, William R., Avondale.
 Simpson, Robert, Frankford, Phil-
 adelphia.
 Siebert, Charles T., Pittsburgh.
 Smith, W. H., 1018 Chestnut
 street, Philadelphia.
 Smith, J. Y., Doylestown.
 Stuetzer, E., Germantown and Sus-
 quehanna avenues, Phila.
 Stevens, F., Lansdowne.
 Stauffer, Abram, Lancaster.
 Strong, O. H., Oil City.
 Strouch, C. L., Pottsville.
 Strouch, N. P., Pottsville.
 Stone, H. C., Woodland avenue,
 Philadelphia.
 Stahl, B., Thirteenth and Chest-
 nut streets, Philadelphia.
 Starr, Charles T., Avondale.
 Swayne, William, Kennett Square.
 Taplin, W. H., Holmesburg.

Thomas, W. D., 4121 Parish street,
 Philadelphia.
 Wagner, W. H., 1224 Ridge ave-
 nue, Philadelphia.
 Waterer, H., 16 N. Thirty-eighth
 street, Philadelphia.
 Westcott, W. H., Second street,
 below Tioga street, Phila.
 Weiss, Eugene, Eighth and Arch
 streets, Philadelphia.
 Westcott, John, 1514 Chestnut
 street, Philadelphia.
 Whilldin, J. G., 713 and 715 Whar-
 ton street, Philadelphia.
 Whiting, W. H., Wellsboro'.
 Wilkinson, Sidney, 714 Chestnut
 street, Philadelphia.
 Winters, Thomas J., Commerce
 street, Harrisburg.
 Wintzer, A., West Grove.
 Williams, Albert, Sharon.
 Woods, D. R., New Brighton.
 Woods, David, Holmewood Ceme-
 tery, Pittsburgh.
 Wood, James P., 39 S. Fourth
 street, Philadelphia.
 Wuttke, F. W., Etna.
 Wynings, R. W., Lebanon.
 Wyatt, William H., 236 N. Thir-
 teenth street, Philadelphia.
 Young, W. J., School street, Ger-
 mantown, Philadelphia.

Rhode Island.

Batcher, William, Pitman street,
 Providence.
 Burrough, George A., Cook street,
 Providence.

Connor, T. O., Providence.
 Johnson, George, Elmwood.
 Jurgens, Carl, Newport.

South Carolina.

Thompson, Mrs. J. S. R., Spartanburg.

Vermont.

Allen, C. E., Brattleboro'.
 Bryant, Henry, St. Albans.

Cook, George, St. Albans.

Virginia.

Reynolds, Benjamin, Norfolk.
 Robertson, John, Alexandria.

Roper, C. E., 408 West C street,
 Richmond.

West Virginia.

Hiehle, Adolph, Wheeling.
 Krieger, William F., Superintendent
 Parks, Wheeling.

Meyer, Fritz R., Savannah.

Wisconsin.

Carrie, William, Milwaukee.
 Dilger, F. P., Milwaukee.
 Dilger, M. P., Milwaukee.
 Dorner, H., Milwaukee.
 Ellis, Frank R., Milwaukee.
 Freytag, J., Milwaukee.
 Gordon, Mrs. George, Milwaukee.

Haentze, E., Fond du Lac.
 Jewett, Z. K., Sparta.
 Le Febre, John, North Greenfield.
 Middlemass, A., Milwaukee.
 Nimicke, C., Milwaukee.
 Salzer, H. A., La Crosse.

Canada.

Bennett, J., Montreal.
 Campbell, C., 40 Rudegonde street,
 Montreal.

Cape, John, Winnipeg.
 Dale, H., Brampton, Ontario.
 Fraser, Mrs. Agnes, Toronto.

France.

Benard, E., 51 Ronte, Orleans.

SUPPLEMENT TO MEMBERSHIP LIST.

- Asmus, Ernest, West Hoboken, N. J.
 Auger, B. C., Fort Wayne, Ind.
 Avery, Charles H., Madison, Wis.
 Appleton, Thomas, Lake Forest, Ill.
 Butz, Paul, New Castle, Pa.
 Bastow, W. D., Wellington, Kan.
 Beck, Charles K., Soldiers' Home,
 Dayton, O.
 Bellville, J. B., Cedar Point, Hamilton
 county, O.
 Bertrand, Henry, Carthage Pike, Avon-
 dale, O.
 Becker, Frank, Cambridge, Mass.
 Bettman, John G., New Albany, Ind.
 Buettner, C., Deadwood, Dakota.
 Bonner, E., Xenia, O.
 Bunde, A. H., St. Paul, Minn.
 Brunner, C. A., Cincinnati, O.
 Berterman, William, Indianapolis, Ind.
 Berterman, John, Indianapolis, Ind.
 Bussard, Henry, Yonkers, N. Y.
 Boehman, E. H., Pittsburgh, Pa.
 Baumgarten, Charles, Milwaukee, Wis.
 Cogan, R. W., Miles Center, Ill.
 Critchell, B. P., Fourth street, Cin-
 cinnati, O.
 Cornelli, Edward, Indianapolis, Ind.
 Clark, David, Broadway, New York
 city.
 Clark, Samuel, Fountain Grove, Santa
 Rosa county, Cal.
 Cartwright, George, Dedham, Mass.
 Carbon, Joseph, Des Plaines, Ill.
 Cooley, Mrs. H. Clay, Manchester, O.
 Cefrey, A. T., 37 Tremont street, Bos-
 ton, Mass.
 Crusman, J. J., Clarksville, Tenn.
 Cincinnati Desiccating Company, Cin-
 cinnati, O.
 Clarke, E. C., Springfield, Mass.
 Calvert, F., Lake Forest, Ill.
 Carington, R. C. S., Worcester, Eng.
 Caldwell, Thomas N., Carthage, O.
 Casper, L. A., Council Bluffs, Ia.
 Carters, Thomas J., Lake View, Ill.
 Conroy, Edward, Cincinnati, O.
 Drobisch, Gustave, Columbus, O.
 Dorval, Victor, Woodside, Long Island,
 N. Y.
 DeVry, H. J., Chicago, Ill.
 Dresel, Augustus, Chicago, Ill.
 Dumont, S. M., Vevay, Ind.
 Deneke, Charles, Henderson, Ky.
 Downs, William, Evanston, Ill.
 Doswell, George W., Fort Wayne, Ind.
 DeForest, W. H., Summit, N. J.
 Devine, Peter, 183 Canal street, Chi-
 cago, Ill.
 Eliot, Edward, 411 Milwaukee street,
 Milwaukee, Wis.
 Ellis, Marcus, Keene, N. H.
 Edlefson, Lavis, St. Paul, Minn.
 Edlefson, William, Milwaukee, Wis.
 Forder, Alfred, East Walnut Hills,
 Cincinnati, O.
 Fischer, Albert, Woodburn avenue,
 Cincinnati, O.
 Fries, John, Newport, Ky.
 Fairchild, O. P., 20 East Fifth street,
 Covington, Ky.
 Finn, John, Second avenue, New York
 city.
 Fisher, Sewell, Framingham, Mass.
 Franks, Thomas, Champaign, Ill.
 Frazer, William, Baltimore, Md.
 Goode, Frank, Springfield, O.
 Goode, John, Chicago, Ill.
 Getz, Charles A., Harrison Pike, Cin-
 cinnati, O.
 Genteman, C. F. W., Quincy, Ill.
 Gibbs, J. F., Perrysville, Pa.
 Gray, Walter, Kirby Road, Cummins-
 ville, Cincinnati, O.
 Glins, Joseph, Spring Grove avenue,
 Cincinnati, O.
 Griffith, N. L., Independence, Mo.

- Guy, Everett W., Belleville, Ill.
 Grimmer, C. P., 51 West street, Boston, Mass.
 Grew, Mrs. J. W., Independence, Kan.
 Gallup, C. R., Denver, Col.
 Guy, T. W., Kimmswick, Mo.
 Guy, E. W., Belleville, Ill.
 Giddings, A., Danville, Ill.
 Huston, Frank, Milton, Ind.
 Hellenthal, John R., Columbus, O.
 Hamilton, William, Allegheny, Pa.
 Heath, Robert, Woodstock, Ontario, Can.
 Hasp, Philip F., College Hill, Hamilton county, O.
 Heikes, W. F., Huntsville, Ala.
 Hoeffner, Henry, Hamilton, O.
 Hall, William E., Clyde, O.
 Henaker, D., Louisville, Ky.
 Hilker, Henry, Indianapolis, Ind.
 Hodson, George, North Springfield, Mo.
 Heffron, D. S., Washington Heights, Ill.
 Henecke, C., Milwaukee, Wis.
 Heint, Lawrence, Terre Haute, Ind.
 Hews, A. T., North Cambridge, Mass.
 Herline, Herman, Cumminsville, Cincinnati, O.
 Hoppenmutte, Paul, Milwaukee, Wis.
 Herinze, E., Fond du Lac, Wis.
 Hull, William, College Hill, O.
 Hoffman, Jacob, Sta. A., Cincinnati, O.
 Helms, Walter, Janesville, Wis.
 Jackson, Thomas, Sycamore street, Cincinnati, O.
 Jackson, S. S., Cincinnati, O.
 Jackson, Albert T., Bowmanville, Ill.
 Jones, John, Madison, N. J.
 King, James, Chicago, Ill.
 Knott, David, Jr., Avondale, Cincinnati, O.
 Kolthoff, Frederick K., Oak street, Walnut Hills, Cincinnati, O.
 Knost, C., Portsmouth, O.
 Knott, David, Sr., Avondale, O.
 Keller, John, 15 Lexington avenue, Indianapolis, Ind.
 LeMoult, A., 174 Bowery, New York city.
 Losey, J. W., LaCrosse, Wis.
 Lanham, Harry, Memphis, Tenn.
 Lauer, Anton, Cave Hill, Louisville, Ky.
 Lockhurst, Frederick J., Chicago, Ill.
 Munma, George R., Dayton, O.
 Morat, Francis, Ormsby avenue, Louisville, Ky.
 Murdoch, James, Smithfield street, Pittsburgh, Pa.
 Maitre, R., Magazine street, New Orleans, La.
 McIntyre, J. W., Fulton, Mo.
 McConnell, J. T., Fulton, Mo.
 McIntyre, Daniel, Nashville, Tenn.
 McGall, H. J., Orange, N. J.
 Morat, Edward, Fourth street, Louisville, Ky.
 Moore, George, Milton, Ind.
 McKellar, William, Chillicothe, O.
 MeBeth, Thomas, Springfield, O.
 Morton, William E., 615 Congress street, Portland, Me.
 Mensing & Stecher, 336 North St. Paul street, Rochester, N. Y.
 McNally, E., Louisville, Ky.
 Manthey, A., Cincinnati, O.
 Mullert, Hugo, Cincinnati, O.
 Miller, Charles, Westwood, Cincinnati, O.
 Mathews, W. G., Dayton, O.
 Newitt, W. G., Grand Boulevard, Chicago, Ill.
 Neuner, Charles, St. Matthews, Jefferson county, Ky.
 Neuner, Alfred, Fourth street, Louisville, Ky.
 Norton, Michael, Hotel Berkeley, Boston, Mass.
 Nixon, E. S., Chattanooga, Tenn.
 Ohmer, Nicholas, Dayton, O.
 Purvis, R. J., Havelock, Ill.
 Parker, George L., Dorchester, Mass.
 Probasco, Henry, Oakwood, Clifton, Cincinnati, O.
 Pitcher, James R., Short Hills, N. J.
 Peters, C. A., Price's Hill, Cincinnati, O.
 Palmer, W. J., 306 Main street, Buffalo, N. Y.

- Ray, Alfred, 33 Drummond street,
Montreal, Can.
- Ramsey, James R., Nashville, Tenn.
- Reed, John, Everett, Mass.
- Rhodemeyer, George E., Philadelphia.
- Roeskey, H., Marysville, Kan.
- Smith, W. L., Aurora, Ill.
- Sunderbruch, Augustus, Cincinnati, O.
- Schuster, Mrs. Theodore, 519 Herkimer
street, Brooklyn, N. Y.
- Singler, N., Washington Heights, Ill.
- Schiller & Kuske, Niles Center, Ill.
- Sulzer, Frederick, Lake View, Chi-
cago, Ill.
- Spence, John, Santa Barbara, Cal.
- Seitner, E., Dayton, O.
- Schaefer, R., Denham street, Cincin-
nati, O.
- Sailer, Isaac D., Third and Walnut
streets, Philadelphia, Pa
- Smith, W. B., Cincinnati, O.
- Swartling, C., Indianapolis, Ind.
- Simmons, D. C., 115 Monroe street,
Chicago, Ill.
- Starr, A. R., Joliet, Ill.
- Saunders, Edgar, Wright's Grove,
Chicago, Ill.
- Sayler, J. A., Baysville, Long Island,
N. Y.
- Swalm, A. J., Hazleton, Pa.
- Shaw, J. Austin, Cook county, Ill.
- Suder, Mrs. E., 181 Summit street, To-
ledo, O.
- Treadway, J. T., Brandt, O.
- Tracy, S. M., Columbia, Mo.
- Tait, Thomas, Port Richmond, N. Y.
- Thompson, George, Cave Hill, Louis-
ville, Ky.
- Taylor, D. L., Melrose, Mass.
- Therkidson, P. H., Ironton, O.
- Taylor, C. W., New Brighton, Pa.
- Underwood, William, Ludlow, Ky.
- Union and Advertiser Company, Roch-
ester, N. Y.
- Unverzagt, Louis, Springfield, Ill.
- Vogt, William, Camden, N. J.
- Whitcomb, A., Lawrence, Kan.
- Whitnall, F., Milwaukee, Wis.
- Wilson, William C., Astoria, N. Y.
- Welch, George, Madison, N. J.
- Weinhoeber, E., 417 Elm street, Chi-
cago, Ill.
- Will, Oscar H., Bismarck, Dak.
- Warder, R. H., North Bend, O.
- Wilson, George W., Malden, Mass.
- Walker, Herbert G., New Albany,
Ind.
- Wooleott, F. A., Batavia, Ill.
- Whiteley, S., Racine, Wis.
- Williams, John, College Hill, O.
- Wilson, John, College Hill, O.
- Wilson, James S., 3415 Olive street,
St. Louis, Mo.
- Young & Elliott, 54 Dey street,
New York city.



