AMERICAN PEONY SOCIETY

Bulletin

MARCH — 1958

Bulletin No. 148

TABLE OF CONTENTS

Entered as second class matter at the postoffice at Rapidan, Virginia, October 4, 1951, under Act of March 3, 1879.

Subscription to non-members $5.00 a year.

Published quarterly by the

AMERICAN PEONY SOCIETY

George W. Peyton, Editor — Rapidan, Virginia

AMERICAN PEONY SOCIETY

OFFICERS

President: Harold E. Wolfe, 24 South 86th St., Belleville, Illinois.

Vice-President: Myron D. Bigger, 1147 Oakland Ave., Topeka, Kansas.

Treasurer: L. W. Lindgren, 1787 West Minnehaha Avenue, St. Paul, 4, Minnesota.

Secretary and Editor: George W. Peyton, Box No. 1, Rapidan, Virginia.

DIRECTORS

W. A. Alexander, 145 Eberly Avenue, Bowling Green, Ohio. (1960).

Myron D. Bigger, 1147 Oakland Ave., Topeka, Kansas. (1959)

L. W. Cousins, 472 Tecumseh Avenue, London, Ontario, Canada. (1959)

Frank L. Howell, Lake Lenape, Rt. 1, Newton, New Jersey. (1959)

Dr. D. Sanford Hyde, 810 Bonnie Brae, River Forest, Illinois. (1959)

Marvin C. Karrels, 3272 South 46th St., Milwaukee 15, Wis. (1959)

Clarence Lienau, 25804 Joy Road, Rt. 1, Detroit 28, Mich. (1959)

L. W. Lindgren, 1787 West Minnehaha Avenue, St. Paul, 4, Minnesota. (1958).

Frank E. Moots, 1127 West Broadway, Newton, Kansas. (1958).

George W. Peyton, Box No. 1, Rapidan, Virginia. (1958).

Miss Silvia Saunders, Clinton, New York. (1959)

Louis Smirnow, 85 Linden Lane, Brookville, Long Island, New York, (1958).

Allen J. Wild, Sarcoxie, Missouri. (1960).

Harold E. Wolfe, 24 South 86th Street, Belleville, Illinois. (1958).

Director on Board of American Horticultural Council: Dr. J. Franklin Styer, Concordville, Pennsylvania.

DISTRICT V

President: Roy G. Gayle, 6930 West State Street Road, Rockford, Ill.

Secretary-Treasurer: Theo. R. Mysyk, Box 525, Hebron, Illinois.

OBJECTIVES

The Articles of Incorporation state: Sec. 2. That the particular objects for which the corporation is to be formed are as follows: To increase the general interest in the cultivation and use of the peony; to improve the standard of excellence of the flower; to improve the methods of its cultivation and methods of placing it upon the market; to increase its use as a decorative flower; to bring about a more thorough understanding between those interested in its culture; to properly supervise the nomenclature of the different varieties and kinds of peonies; to stimulate the growing and introduction of improved seedlings and crosses of such flower; and to promote any of the general objects herein specified by holding or causing to be held examinations, and awarding or causing or procuring to be awarded, prizes therefor, or in any other manner.

MEMBERSHIP

The By-Laws state: All reputable persons, professional or amateur, who are interested in the peony, its propagation, culture, sale and development, are eligible to membership.

The annual dues are now $5.00 a year. The year begins with January 1 and runs the calendar year. Applicants for membership should send a check or money order for five dollars payable to AMERICAN PEONY SOCIETY to the Secretary. If cash is sent, the letter should be registered. The Society will not be responsible for any cash remittances made otherwise. Membership fee is $5.00, $3.00 of which is for a subscription to the American Peony Society Bulletin for one year. Subscription to the Bulletin to non-members, $5.00 for one year.

THE BULLETIN

The Bulletin is issued quarterly. Back numbers when available, will be charged at prices which will be furnished by the Editor. Current year back numbers will be fifty cents each to members.

DEPARTMENT OF REGISTRATION

This department was formed "to properly supervise the nomenclature of the different varieties and kinds of peonies." Those who desire to register a new variety, and all new varieties should be registered to avoid duplication of names, should apply to George W. Peyton, Chairman, Nomenclature Committee. Registration fee is $2.00 for each variety registered.

AMERICAN Peony Society Bulletin

3125
226

MARCH, 1958 — NO. 148

PRESIDENT'S MESSAGE

Our Secretary has subtly informed me that we will not lack for material in this issue, so it will save his time and our space if I just say "Howdy!" to all of you, and suggest that the real message I'd like to get across to you is contained in my article on hybrids to be found (I hope) elsewhere in this issue.

Looks like the folks up Minnesota way are well under way with plans for one of the finest shows ever. We'll see you there!

Harold E. Wolfe

March 15, 1958

The Mathematics Of Hybridizing

Harold E. Wolfe

Over the years there have appeared in the bulletins of our society a number of fine articles on hybrid herbaceous peonies. Not only are they a "must" for anyone interested in this field—they comprise practically all the material on this particular phase of plant-breeding.

None of these articles, however, include information on the mathematical formulae that determine the extent to which we can obtain genetically-differing individuals in populations of hybrids, and it has occurred to me that it might be of some benefit to present them. Many I am sure, will find them interesting, and some may find them helpful. Certainly it will demonstrate that there are myriad possibilities of bringing into being many new fine hybrid peonies to add to those that are already brightening our peony seasons.

In the broadest sense a hybrid is the result of a cross between two individuals that differ to any extent in their genetic constituencies. Using this definition, a cross between any two varieties of albiflora would be called a hybrid. This would actually be an intra-species hybrid, and we would have to identify an inter-species cross as such to distinguish it from the intra. In a somewhat narrower but more convenient sense the term "hybrid" is used to indicate only inter-specific or inter-generic crosses, and we shall use it in that manner here. And since we are not concerned with the latter, its use will imply only crossing between two species—or more, as in the case of multiple hybrids.

There is no need to give detailed explanations of the genetic terms required in this presentation. We are concerned here only with the parts they play in bringing about

differences in seedling populations.

Let us deal first with chromosomes, for it is their arrangement and re-arrangement that is the basis for our mathematics of difference. All normal individuals of practically all species, be they plant or animal, contain in each of their cells a number of chromosomes which is normal or "regular" for the species. This number varies between species. In the genus Paeonia the chromosome number for albiflora is 10; for officinalis and lobata, 20. These latter are said to be "tetraploids," or plants with twice the "normal" number of chromosomes.

Chromosomes may in a sense be considered packages, containing genes. They are visible under the microscope. Genes, which are the mechanism of inheritance, are so small they can be seen only with the aid of an electron microscope. More is know about the effects of these genes than about how they bring these effects about.

Chromosomes exist in sets and in pairs. In albiflora there are two sets of 5 each, and five pairs. If we identify one set as chromosomes A, B, C, D, and E, then the corresponding pair-members in the other set can be identified as a, b, c, d, and e. If we cross two albifloras, one parent contributes one set of five; the other the other set. If we cross albiflora and anomala, again each parent contributes one set of five, to make up the normal cell complement of 10. But where we run into difficulty is when we make the albiflora x lobata cross, for in this instance lobata's chromosome contribution to the hybrid thus formed is 10, instead of 5. These added to albiflora's 5 make a total of 15 in the hybrid's cells, and this means difficulty later on with its fertility. But we will reserve this for some future article on sterility in hybrids.

It should be explained that when ova and pollen cells are formed, these each contain only *half* the normal number of chromosomes in the plant's cells. When they unite to form a new plant, its cells then contain the normal number. This is a wise provision on nature's part, for in the case of our albiflora x anomala cross, if each parent contributed its full complement of 10 chromosomes, the resulting hybrid would have 20 in its cells. In the next generation there would be 40, the next 80, and so on. Propagation, life itself, would become impossible

If officinalis (20) and lobata (20) are crossed, each contributes 10 chromosomes so that the resulting hybrid has 20.

It has been noted that when ova and pollen are formed, at their functioning stage they have only half the normal number of chromosomes. It should be now mentioned that this is the same number as those in each of the plants' two "sets." Let us identify one of an albiflora variety's sets as X, and the other as Y. The 5 chromosomes in any sex-cell will not necessarily belong to *one* of these sets. As long as the set in the sex-cell is a complete one, some of its chromosomes can come from X, some from Y. But we must have all the pairs represented. The 5 in any sex-cell may be ABcde, or aBCde, or ABCdE. Only one out of every 32 will be either ABCDE or abcde.

It is this phenomenon of random chromosome arrangement in formation of ova and pollen cells that is the basis for the differences in the F, or first generation of seedlings. And the formula for determining the number of genetically differing cells is 2^{nth} power, where n equals the number of *pairs* of chromosomes with any differences at all between their respective

members. Assuming that in each of the parents of a hybrid this number would be 5 (and in most peonies as they now exist this is certainly a safe assumtion) this expanded becomes 32, so that 32 differing types of sex-cells will in this instance be formed.

If a plant with n pairs of chromosomes differing between themselves is selfed, the number of genetically differing individuals possible to obtain is represented by the formula 3^{nth}. Again using 5 for n, we this time have 343. (If only 4 of the pairs differed between themselves, we would have only 81). We might raise 1000 seedlings from a self and not encompass all the 343 possible genetically differing seedlings—or genotypes, but certainly the minimum number we could raise to obtain them would be 343.

From this we go to the next situation, that of crossing two species with appreciable differences between the respective chromosome pairs in each. The formula here is 4^{nth}, and with n again equalling 5, we get 1024. This is the number of genetically differing seedlings we could hope to obtain, for instance, when we make the albiflora x anomala cross. And incidentally, also when we make the albiflora x officinalis and albiflora x lobata crosses, in spite of the fact that these two last-named species are tetraploids. They are apparently autotetraploids.

We come now to the F-2 or second generation, in which we always find the most desirable plants. This is true because of the concentrationo of "good" genes possible in this generation. But we should mention that it is in this generation that we also find the poorest ones, for a like concentration or gathering of "bad" genes is equally possible.

After we have our hybrids between albiflora and anomala, and they are fertile, we can by selfing and intercrossing them obtain a total of 100,000 genetically differing seedlings. The formula here is 10^{nth}, with n qualified as before.

By this time it is evident that there is much unexplored seedling territory for us—an area in which we can most assuredly expect rewards for our labor. It is thrilling to contemplate what the second generation of the albiflora x lobata will give us. Give us, that is, when we have learned how to break through the sterility barrier with which these hybrids confront us.

(This sterility is not in itself an undesirable characteristic, for it makes them more desirable as cut flowers. This means in almost all cases no free pollen, even in the singles.)

The actual number of types of seedlings possible in most "interspecies" crosses is much larger than 1024 indicated by the formula 4^{nth}, for there are many genetic types in albiflora, for instance, and also appreciable variations in many of the other species used in crossing. If we should use lobata pollen from one lobata plant on 20 different varieties of albiflora we are certain to have a possibility far greater than 1024. And if on these same 20 albifloras we used pollen from several lobata "forms," the number will be still greater.

It should be pointed out that the more first generation plants we produce from crosses between albiflora and lobata, for instance, the greater chance we have of obtaining *fertile* hybrids that will make a populous second generation easier to obtain.

One of the things all peony breeders should appreciate is the wide assortment of genes available in old reliable albiflora. It is more

practically valuable as it now exists than it would be if it were a "pure" species. It has served the world well, and it is safe to say that when better peonies are built, albiflora's genes will help build them.

It is to be hoped that this article has at least disclosed the great poshibilities for us in the future. We have, for sake of clarity, used as few species as possible in our discussion, but the *overall* possibilities when all the others are taken into account becomes almost an imponderable. For the reason of time alone, only a relatively few may ever be realized. And yet, even the prospect of securing the new things this relatively few will give us has prompted my exploratory activities in herbaceous hybrids over the past few years. Here lies an ever-continuing challenge—a permanent Mount Everest, perhaps, for some of the younger folks whom we would like to see take up peony-breeding.

Inducing Virility in a Totally Incomplete Variety Of Paeonia Lactiflora

An "A" Essay By
James Frederick Murawska
Department of Biology
Northern Illinois University
DeKalb, Illinois
January 1958

From long observation of peony types, the writer of this paper has come to believe that the double type of flower in some peony varieties has advanced to a stage of climax in transformation of reproductive floral parts. In this type of flower the stamens and sometimes the carpels become metamorphosed into petals, rendering the flower incapable of reproduction. This is not true of all double varieties of *Paeonia lactiflora* but does occur in varying intensities among the double varieties of this species. Occasionally on some metamorphosed varieties a lateral bloom may develop a carpel, caused by the inability of the lateral bud to fill out to its maximum capacity as normally accurring with the terminal blooms. This phenomenon demonstrates that the terminal bud may influence an inhibitory effect on the development of the lateral bloom. The terminal bud can be removed, thus influencing the lateral buds to develop rapidly. This results in the inhibition of reproductive carpel and stamen development on all lateral blooms. The conclusion therefore seems to indicate that the terminal bud of the normal nondecapitated plant acts as a retarding factor in the development of the lateral buds. This evidence may prove that there is a growth substance found in the terminal bud that may both inhibit and promote lateral bud development.

A variety such as LeCygne, which has been under cultivation for the past fifty years, has never been found to normally produce a carpel or stamen. This plant exhibits both lateral and terminal buds alike in every morphological way except size of the actual inflorescence. It is this variety that the writer is primarily concerned with in preparing this paper.

Peony hybridizers the world over are continuously attempting to improve and develop new desirable varieties of peonies. The actual cross pollination of peony varieties has been limited, until recent years, to a haphazard selection of two

virile semi-double or double varieties. The breeders are attempting to produce the proper genotype resulting in a fully double horticultural type of flower The majority of desirable fully double varieties retain a totally sterile existence, therefore limiting the selective breeding between two doubles that exhibit all the garden qualities of a perfect landscape flower.

Recently a mechanical means causing the reversal of the metamorphic change from carpel to petaloid and stamen to staminode has successfully been proven by the author. This technique allows the hybridizer to use *Paeonia lactiflora* var. Le Cygne as a phenotypic desirable parent in his plant breeding, resulting in a high incidence of fully double seedlings. The technique is indeed of utmost simplicity but the causative influence it has over the plant growth is much more complex. The actual physiological inducement of this erratic change can only be hypothesized upon at this time.

Method and Procedure of Technique

The basic mechanics involve a decapitation of the floral stalks, of the variety Le Cygne, at an early stage in the embryonic development of the floral bud. This procedure must be carried out during the first few days following the commencement of growth of the primary dormant eyes on the root stem of the specimen. Following the destruction of the primary apical meristem of the floral stalk an environmental or physiological influence causes a rudimentary secondary eye to begin to develop. The floral stalk formed by the growth and development of this secondary eye exhibits all the reproductive components of a complete flower. Experimental breeding with this changed variety of Le Cygne has shown potency of both male and female reproductive plant parts. This phenominon does not influence change in successive years of floral production but only occurs during the same year of decapitation of floral stalks.

The writer believes that there may be at least three possible solutions to the significance of the mechanics of this technique in influencing the change in growth character of the inflorescence. Let us first consider the possibility of environmental influence on the plant, brought about by the decapitation of the floral stalk. This type of mechanical decapitation would result in a marked setback in the development of primary floral stalks. The secondary stalk growth, after the injury, occurs during the latter part of June or early July with the resultant growth occurring under the influence of a longer duration of light during the day. This photoperiod response can be duplicated by holding back the growth of a specimen by means of dark, cold storage until growth of the decapitated specimen normally begins in the outdoor environment. The specimen is then removed from cold storage and placed in the same environment. The observer is then able to determine whether there is an influence in the length of photoperiod involved in the production of the reproductive parts of the flower.

The second possible causative factor in the technique may be a differentiation in the morphology of the primary and secondary eyes on the root stem. For this determination you must first collect workable specimens of both the primary and secondary apical meristem from the root stem of Le Cygne. As a control measure, or for a means of comparison, the observer should

also collect primary eyes from varieties that normally develop flowers with reproductive parts. Then, after the histological technique involved in tissue fixation and staining, an observation of this tissue is made under a microscope. This hypothesis may prove that there is a gross variance between the microscopic cellular make-up of the primary and secondary eyes, using the tissue slides of the control plant for comparison. If there is a close resemblance between the secondary meristem tissue slides and the control slides, the assumption can be made that the secondary eyes are always capable of reproducing flowers with reproductive parts. These findings may be of significance for the variety Le Cygne, but how do we account for the fact that certain varieties exhibit reproductive floral parts on lateral inflorescences and not on their terminal inflorescences as referred to in the first paragraph of this paper?

The third and probably most feasible explanation for the floral change may be the plant's ability to produce hormones or growth substances. We may assume that hormones act both as inhibitors and promoters in the formation of reproductive floral parts. It has been stated early in this paper that in some varieties the terminal bud seems to inhibit the complete development of the lateral blooms. This inhibitory hormone may be present in the floral buds of the stalks produced by the primary dormant eyes of the variety Le Cygne. With the removal of the primary flower stalk, the plant growth seems to promote the production of secondary stalks capable of producing flowers with virile reproductive parts.

The problem now facing the researcher is one of great complexity; he must determine or isolate the growth substances responsible for this unusual change in floral development. Experiments have successfully demonstrated that plant auxin, florigen and rhizopin participate in the flowering response of both long and short day plants. It is now the responibility of the observer to experiment with many growth substances on the developing embryonic buds. If a growth substance seems to promote change in the development of the inflorescence on the primary flower stalk, the researcher can conclude that the decapitation technique influences production of a growth substance resulting in virile flowers. Lanolin may be placed over the inoculated bud to prevent it from drying out and to eliminate weather removal of growth substances.

The researcher may find that after he once determines the actual cause of this growth change phenomena he has but just begun his work. With each problem that he may solve he may create many new problems, for this is a study that is still in its infancy and much is unknown. The question "why does this occur?" seems to stem from every conclusion the researcher may arrive at. Not until all questions are thoroughly answered will the true facts be known.

The information that has been given is accumulated from my own experience and conversations carried on with Mr. Arthur L. Murawaska.

Forcing And Hybridizing Peonies

W. S. Bockstoce, 2803 Bergman Street, Pittsburgh, 4, Pennsylvania.

The following are some of my experiences in forcing and hybridizing peonies which have ex-

tended over the last forty five years.

Not all species of peonies bloom at the same time, many of the early ones blooming at least three weeks before the albiflora varieties which are the latest to bloom. So when we wish to cross an albiflora variety with, say an officinalis variety, we either have to obtain pollen of the albiflora from some Southern source, which is inconvenient and often not satisfactory, or force the albiflora into bloom about a month or three weeks before it would open out of doors.

For forcing, I build a cold frame in two sections, each 7' x 7' for two sash, using 2" x 8" lumber. About the last of February I place one section of the frame over the varieties to be forced. When the plants come up and nearly touch the glass, I place the second section on top of the first, making a frame about 16" deep. The plants grow quite rapidly and soon touch the glass. Then they have to be carefully bent over and pegged down to keep them from doing this. As cold frames are not frost proof, I use three sheets of ¾" celotex for protection on cold nights. I have about eleven plants of albiflora in this frame.

When the pollen is ripe I gather and store it in small saucers or watch glasses in a dessicator until I need it. Then it is applied to the female parents with a camel's hair brush.

Incidentally I make the cold frame do double duty, planting about half the bed between the peonies with onion sets and the rest with lettuce. After these first crops are gathered I make two or more sowings of lettuce, and so have lettuce to cut until Christmas.

In my work I have found that the results of the original cross, following the Mendel Law, show almost 100% of the characteristics of the dominant parent. though these seedlings still possess the recessive tendencies of the other parent.

For example, if a red officinalis variety is crossed with a pink or white albiflora variety the offspring will be nearly 100% red singles, rather tall growers. There will be few doubles. The majority of this first generation will be "mules", that is they will not set seed. I have never found a first generation double that would set seed.

The second generation crosses will start to break up and show the recessive charateristics of the two parents, that is there will be more doubles and a much greater variation in the colors. The third generation crosses will show an even greater proportion of doubles and of other colors besides the red of the first generation. In these second and third generation plants, some of the doubles will set seed.

Mr. Bockstoce tells us that he uses only white doubles and semi-doubles for forcing. This is because he hopes to get some good white doubles from his crosses.

He has planted in the frame at present the following:

Miss America, Aerie, Mildred May, Ethel Mars and a few others he did not name. He wants to know the names of some other good white doubles or semi-doubles that have pollen bearing stamens. Maybe White Rose, Mrs. Edward Harding, Titania and some others might do for him. If you have any suggestions to offer let us know at once.

SPICE FOR PEONIES

By W. A. Alexander

Peony people are prone to be one flower enthusiasts, which probably accounts for the existence of the American Peony Society, and so can be considered a fortunate fact by all who love peonies and cherish our Society. However, a broadening of ones horticultural interests might add greatly to the pleasure he can experience from his gardening efforts and need not lessen in slightest degree his enthusiasm for peonies or the attention he gives them. In fact, well planned landscaping and use of some other flowers may greatly enhance the beauty of his peonies and increase the satisfaction they afford. For the commercial grower, sales may be stimulated by demonstrating how peonies can be used as landscape material.

Many commercial growers have added iris, oriental poppies and hemerocallis as sidelines to increase sales volume, and to utilize more fully their production equipment and marketing facilities. Iris is certainly one of the most compatible companion flowers one can use with peonies. With the difference in foliage type as well as flower form and colors, they do not clash or compete, but add accent and variety to a peony planting. Iris fans, like peony people, are often indifferent to the appeal of other flowers. But let the iris fan, regardless of how "one-flowered" his interest, see a planting of blue iris and red hybrid peonies blooming together and he will surely be buying peonies next fall. They make a striking and unforgettable combination. But a word of caution: many hybrids are too early for the iris bloom. Choose the later blooming kinds.

Poppies are among the most striking and spectacular garden flowers. They have great size, brilliant colors and bold, commanding posture. These very qualities, which can be most desirable attributes in some circumstances, make poppies difficult to use in a small garden or with other flowers. The colors, even the pinks, do not seem to harmonize with anything else. The foliage is something of a problem. It is coarse and weedy looking. It is actually unsightly following the bloom while ripening off before summer dormancy. So be careful how you use poppies. Do not get them too near other less flamboyant things from which they will steal the show. Use them in isolated locations with medium to tall shrubs as a background. But find a place—they are wonderful flowers.

Hemerocallis (daylilies) have made tremendous strides in popularity in recent years. They now rank among the most important of the specialty flowers with a national society which is very strong and active. It is a very interesting plant to work with. Breeding crosses are easily made and results relatively rapid. I have known of a case or two of peony people forsaking their first love for the glamorout hem, and others where the hem horned in to capture at least an equal share of the attention. However, most of us peony people are constant in our devotion, and will *use* hems, not *love* them. Their time of bloom keeps the garden bright with color during mid-summer when there is little else save phlox. Yellow hems and pink phlox make a very pleasing combination and the bloom persists for weeks. The foliage of many varieties of hems is very attractive which adds to its landscaping value. It is vir-

tually free from disease and gives fairly satisfactory performance under very unfavorable environmental conditions, a characteristic which endears it to many.

The pyrethrum (painted daisy) is a perennial which deserves a place in every garden. Its daisy-like flowers atop 18-inch stems growing from a mound of cut-leaf foliage are most appealing. Colors range from white to deep crimson and flowers from single to semi-double and full double. The blooming season is with the hybrids and early albifloras. There are named varieties which the meticulous gardener will want. Of course, these must be propagated asexually, and few plantsmen carry them. Among the ones we have had which were generally admired are: Buckeye, a full double pink; Victory, double white; Brilliant, semi-double pink; Huntington's Scarlet, large flowered single. We have propagated and named several seedlings which had characteristics we like. The pyrethrum is generally a short lived perennial although some clones are as persistant as peonies. If you grow them from seed you will find great variation in plant characteristics as well as flowers.

Another perennial we find useful and interesting is heuchera (coralbell). The roundish, succulent appearing foliage is very attractive and semi-evergreen. The dainty, bell-shaped flowers are borne 12 to 24 inches above the foliage. Color varies from white to bright red with most seedlings being a light, rather faded looking pink and stems too long to look well or to function properly in the perennial bed. Therefore it is best to buy named varieties or plant seed and select desirable plants for propagation. We have found that red and dark pink coralbells planted in front of evergreens of the foundation planting give a very nice effect. In partial shade with abundant fertility and moisture, bloom will be practically continuous during the summer.

Lythrum is a perennial I tolerate because it blooms with the daylilies and phlox during the heat of the summer and has a long season of bloom. I say "tolerate" because I do not care for the bloom; but it makes color in aboundance, and is tough and persistent. The first I bought was the old Dropmore Purple. The color was so hideous that it soon went on the trash pile. Subsequent purchases of improved varieties proved far better, but the color can still stand some clearing up.

The Shasta daisy, a member of the chrysanthemum family as is the pyrethum, blooms a little earlier than most daylilies, phlox and lythrum and gives us flowers at a time of scarcity. The large white daisies vary from single to double and stem length from ten inches to about two feet. A number of named varieties are available, but some of the best I have seen were raised from seed. Some clones are a bit on the tender side and do not always endure northern winters.

Those of us who attended the annual meeting at Belleville, Ill., last May will long remember the clematis which helped to make Pres. Wolfe's garden so charming and distinctive. There were six or eight varieties in as many colors and shades. The fence enclosing the garden made an ideal trellis. Most peony growers could find a place for clematis or make one. If there is no fence or enclosed porch where they can grow on strings, wires or trellis, posts can be placed at the ends of peony rows; or they can be planted at the base of shrubs such as forsythia, and allowed to climb over them. The fact that clematis is cut back each spring to a foot

and a half or two feet keeps them tidy. This practice of growing on shrubs is said to be popular with English gardeners.

The growing of shrubs and trees which are little known to most gardeners could add much interest to one's horticultural activities. Many of the finest things are virtually unknown to the general gardening public. For example: there are 25 or more species and varieties of viburnums that have horticultural value, most of which can be raised in peonyland. Only a few are well known to the gardening public. The same is true of cotoneasters. Where acid-loving broad-leafs can be grown, the possibilities are greatly increased. Lilacs, one of our best loved flowering shrubs, is a natural for the peony grower, especially tree peony specialists, as the blooming seasons pretty well coincide or at least overlap. The late blooming hybrid lilacs bloom with the albiflora peonies. My memory goes back a number of years to a visit I made the late John S. Snook of Paulding, Ohio, during the height of the lilac bloom. He was a very old man at that time, living alone and was very lonely because of almost total deafness. His peony garden was bordered with a dozen or more of the finest of the so-called French hybrid lilacs. The pleasure and satisfaction he found in them was heart-warming. He wrote an article on lilacs for the Bulletin which is worthwhile looking up. It is Bulletin No. 111, December 1948, page 27.

If I were situated so it were possible, I would have a small arboretum largely of small to medium ornamental trees suitable for landscaping small properties and ranch-type houses. Included would be a dozen or more of the newer flowering crabapples; several species and varieties of hawthorns; a number of the small Asiatic maples, some of which are very beautiful, e.g. the cherrybark maple (Acer griseum) which has exfoliating bark like a birch, of dark red color; Japanese flowering cherries; all the magnolias which are hardy in peonyland; flowering ash and Modesto ash; the several species of mountain ash other than the common Europeon (aucuparia); the Ruby Red horsechestnut; goldenrain and goldenchain trees; flowering plums and peaches; Idaho locusts and other small locusts; hornbeams and hophornbeams; Stewartia and Franklinia.

Among the larger trees I would have are: Amur cork, Sophora, Zelkova, Katsura and Kolopanax, none of which are well known and all excellent trees. That living fossil, the Gingko tree and the recently discovered prehistoric Metasequoia, Dawn Redwood, would be there. I would have also several of the fine but little known European lindens and beeches; a few of the named selections of Norway and red maples along with several oaks not native to the area in which I live. I would also include some of the better known kinds which are famous for their brilliant fall color: sugar maple, sweet gum, black gum; sassafras and birches. I would find room for a few nut trees and a clump of pawpaw bushes to remind me of my boyhood. Peonies would be planted wherever they would thrive. Tree peonies might benefit from partial shade, and it is surprising how much shade herbaceous kinds will tolerate if root competition is not too severe; some varieties would give me better colored flowers and last longer on the plant when grown in partial shade.

"Variety is the Spice of Life" is a maxim which the peony fan might apply to his gardening activities in a surprising degree. He

would have color in his garden all summer by growing certain other perennials. Some different and better shrubs and trees would add interest and distinction to his planting, and improve the land scape effect. He would find new and better ways of grouping and displaying peonies that would enhance their beauty and emphasize their value as landscaping subjects. Perhaps some of us peony people would do well to use a dash of spice.

NEW MEMBERS

Mrs. Irleen Den Breijen, 624 Pleasant Avenue, Lombard, Ill.

John C. Forbis, 2023 Main St., Joplin, Missouri.

John H. Hardesty, Box 115, Weston, Missouri.

Louis Mattfield, Curtis Garden, 8810 Colerain Road, Cincinnati 24, Ohio.

Henry A. Sauter, Fairview Avenue, Upper Nyack, New York.

Roger Slaby, Cascade Gardens, Route 1, Box 509, Canby, Oregon.

Herbert L. White, Box 264, Woodbine, Iowa.

OLD BULLETINS FOR SALE

We have just received a letter from a former member of this Society, Mr. Walter Timmerman, 2017 Freeman Avenue, Kansas City 2, Kansas (not Missouri). stating that he has Bulletins from No. 2 to No. 41 inclusive for sale. These are for the years 1916 to 1930. He says No. 2 to 13 are bound in a loose leaf binder and that No. 4 has a torn but mended corner and all others are in good condition.

Any one who may wish these numbers should write direct to Mr. Timmerman. This Society has none of them for sale as their supply has long since been exhausted.

OBITUARY

MISS BETTY CONKLIN

Those of us who attended the show at Lake Mohawk, New Jersey, in 1952 will remember the charming young lady who was crowned Queen on Sunday afternoon, June 22, A friend of hers has reported to us that she died of cancer last November. Her husband and a young son survive. Also her parents, Mr. and Mrs. C. Augustus Conklin, McAfee, New Jersey.

She was from the McAfee New Jersey High School. Her picture appears on page 28 of Bulletin No. 125, June 1952.

We are advised that her parents would be much pleased if some one of our originators of new peonies would name one for her. Their preference is for a double white or blush. We hope this can be done. The peony would certainly bear the name of a lovely girl and it would be a gracious gesture on the part of whoever will do this and one he will not regret.

JOHN J. R. HARRELL

1895-1957

Mr. Harrell was born on August 5, 1895, and died October 31, 1957. Burial services were held in Healy Chapel, Aurora, Illinois, in which city he made his home. Interment was in Garden Prairie Cemetery. The officiating clergymen were Rev. Richard Adamson and Rev. J. R. Humphries.

Mr. Harrell had a fine collection of peonies, among them one of the finest collections of hybrids in the country.

Mr. H. D. Poisal of San Leandro, Calif. reports his tree peonies are at their peak and that Moutan has been in continuous bloom since Christmas.

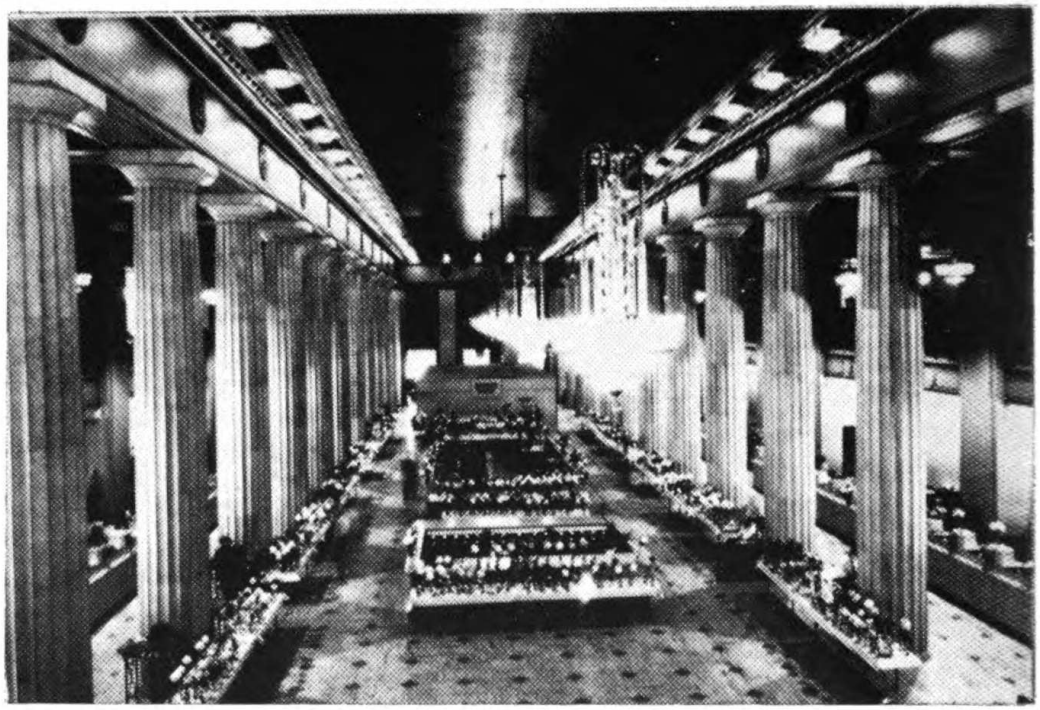
55th Annual Meeting and 53rd Annual Exhibition

AMERICAN PEONY SOCIETY

Sponsored By The Minnesota Peony and Iris Society
In Cooperation With The Minnesota State Horticultural Society

Minneapolis, Minnesota, June 23.24, 1958

Northwestern National Bank



Last June an invitation was extended this Society by the Minnesota Peony and Iris Society to hold our annual meeting and exhibition in Minneapolis, Minnesota, this year.

For many years the Minnesota Society has held an annual peony exhibition and for many years now, it has been held in the lobby of the Northwestern National Bank, where it will be held this year.

Many of us have been privileged to attend these shows and we always have been rewarded with a worthwhile exhibition, though at times it seemed that it would be impossible to have a good show. But due to the enthusiasm of those in charge there has never been a failure so far as we know. So, we are sure, all of our members who can possibly get there, will be treated to a sight that will be well worth seeing and fully warrant any effort they may make to attend.

The tentative dates have been set for June 23-24, 1958. These should be suitable for almost any of our members to attend as there will probably be few gardens that are not through blooming, except those to the north of the Twin Cities, notably Duluth, which comes along with its superb blooms usually about two weeks after the Minneapolis show is over.

Following our custom for the past years, we are here presenting some facts about the Twin Cities and the surrounding country, that may prove of interest to our readers.

Due to the almost inseparable

connection between Minneapolis and St. Paul we shall treat the entire metropolitan area usually as one. We may say in passing, that many think the Mississippi River forms the boundary between the two cities. This is not true as it serves in that capacity for only a short distance.

Just north of the Lake Street bridge the line leaves the river and runs east of it. Due to the fact that few maps bother to show the line, it is hard often to know exactly where it is.

The beginning of the settlement of this country seems to have come with the building of Fort Snelling at the head of navigation of the River. The small village that sprung up a mile or two down the River was first called "Pig's Eye" after a squint eyed tavern keeper, Pierre Parrant. Its name was changed to Saint Paul when a priest, the Rev. Lucian Galtier, built a log cabin chapel there in 1841 and dedicated it to Saint Paul.

In 1849 it was incorporated into a town and the same year, was chosen as the capital of the Minnesota Territory. It was chartered as a city in 1854.

Fort Snelling is situated within the city limits of Minneapolis near the junction of the Minnesota and Mississippi Rivers. It was a busy place in World War II, but now there is little activity there, though we believe a token force is kept there. When one drives through its almost deserted streets, the great waste of wars is vividly brought to one's attention when we see these substantial brick buildings not used for any good purpose now. The main airport for Minneapolis and St. Paul is just outside its grounds to the north-west. Probably the most famous of all landmarks in the area Minnehaha Falls, is nearby just north of the Fort. Also one of the nation's most famous bridges is the mile long Mendota Bridge across the Minnesota River nearby.

Several miles up the Mississippi are St. Anthony Falls, where the great flouring mills are located.

All of us are aware of the nickname of the State of Minnesota The State of Ten-thousand Lakes. Quite a large number of these are included within the city limits of the two cities especially in Minneapolis which has a number of quite large lakes in the residential. districts.

Nearby are many more including the world famous Lake Minnetonka. There are over two hundmiles of beautiful drives around this lake.

Both cities have many famous restaurants. Some are noted for their steak dinners, others for their roast beef, and foreign dishes, especially Italian and Scandinavian are the specialties of others.

Those hunting night entertainment will find many excellent movie houses and quite a number of night clubs at which the entertainment is on a more sultry note.

Motor boat trips may be taken on the various lakes and sail boat races may be seen almost any time.

The present population of the two cities is nearly or quite a million with St. Paul having nearly four hundred thousand and Minneapolis six hundred thousand. In addition there are the usual number of towns nearby which greatly increase the number.

In whatever way the traveller approaches these cities he will be treated to many scenes of surpas-

sing beauty. To the south and west lie some of the finest farming lands in the United States, Those who come by automobile will have the best view of these.

Nine or ten of the largest railways in the United States serve these cities. All of them use one depot in St. Paul, while there are two or more in Minneapolis all quite near each other.

Those coming by rail from Chicago have the choice of three routes. The Northwestern runs from Chicago to Milwaukee and then across the State of Wisconsin more to the north than the other two routes. This is the route of the famous Four Hundred trains, so called because when first inaugurated they made the trip of about four hundred miles in four hundred minutes. Now the schedule is slightly under that I believe. These trains are painted a light yellow with green name boards. The Northwestern Limited has been one of the great trains in the country for many long years. It makes the run at night.

The Milwaukee Road also runs from Chicago to Milwaukee and thence west through the beautiful dairy country of Wisconsin to La Crosse passing the celebrated Wisconsin Dells on the way. At La Crosse it crosses the Mississippi and runs sometimes on the shores of the Mississippi River and sometimes further inland. At Hastings it again crosses the river and goes into St. Paul along the east bank sharing the Burlington tracks into Union Station and thence along the river into its own station in Minneapolis. This road is the route of the Hiawathas and it is noted for its superb roadbed over which speeds of a hundred miles an hour are permitted. These trains are equipped with full length dome cars and are painted a bright yellow.

The third road is the Burlington which runs west from Chicago through the beautiful farm lands of Illinois to the Mississippi at Savannah from which town it runs directly on the shore of the Mississippi into St. Paul, giving a ride of about three hundred miles unequalled for beauty anywhere. Their Twin Cities Zephyrs have domes on nearly all of the cars composing the trains and so afford a grand view of the entire route. This road is also the route of the North Coast Limited of the Northern Pacific to the West Coast and of the Empire Builder of the Great Northern, also for the Pacific Coast. Both of these trains run from Chicago to Minneapolis in daylight both ways.

Serving the Twin Cities from the South are the Twin Star Rocket from Texas by Kansas City and the Zephyr - Rocket from St. Louis both coming into St. Paul over the Rock Island Road. There are three routes to Duluth and one or more to Winnipeg, Canada where connection is made with the Canadian transcontinental roads.

Three roads run through trains to Seattle and Portland, the Northern Pacific, G r e a t Northern, and Milwaukee. Connections are also made by the Soo at Winnipeg as noted above.

From the above it will be seen that many of the finest trains in the world serve these cities and it may be noted that the fastest run in the United States is made by the Burlington Zephyrs along the Mississippi River.

Those who wish to fly, will find through planes for many points and for nearly all others with only one change of plane necessary.

There is also bus service to all points. Also excellent highways

lead into the cities from every direction.

There are excellent hotels within a few blocks of the Bank and on the outskirts of the cities many motels.

From the above it will be seen that the visitor has a choice of many different modes of transportation and when his destination is reached he has also the choice of a variety of accommodations.

For those interested in other flowers besides the Peony, there is the large rose garden on Lake Harriet in Minneapolis. Many acres of gladiolus are grown nearby. There are also many plantings of iris. But as we are interested in Peonies more than the others, we will find a large number of both private and commercial peony plantings in easy reach.

For fifty years and more the Peony has been grown in large numbers around the Twin Cities. Undoubtedly the Brand Peony Farms has been a major factor in fostering the growing of Peonies. Founded nearly ninety years ago, by the late Oliver F. Brand and later on under the managment of the late A. M. Brand the beloved friend of so many of us, the firm still carries on now under the management of the Tischler Brothers. Miss Myrtle Gentry has been connected with this firm for about forty years, though at present she does not take as active a part as she used to do. Later on about 1920 Mr. A. B. Franklin established the Franklin Nursery in the Richfield section of Minneapolis. When Mr. Franklin died, his son Loren bought the Nursery from his estate and moved it to the outskirts of the city and sold most of the old grounds for residential purposes. A year ago last fall he sold most of his plantings to the Brand Peony Farms, though he still has his large collection of herbaceous hybrids and a fine lot of the albiflora varieties. He intends to keep a good collection for his own pleasure.

Other prominent growers are Mrs. A. S. Gowen of Excelsior, 20 miles west on Route 7, and Mr. E. H. Lins still further out on Route 212. It may be remembered that Mrs. Gowen brought much fame to American peonies by taking an exhibit with her to London last summer, which due to her long experence in keeping blooms for exhibit in storage, arrived in London in excellent condition and created much comment. See the December, 1957, Bulletin for a full account of the exhibit.

Near neighbors of Mrs. Gowen are the gardens of Mrs. Hanratty and Mrs. Wysocky of Mounds and Ben Haeg of Minneapolis, Stover Gardens, Minneapolis, R. C. Schneider of St. Paul, A. F. Heunisch of St. Paul, F. W. Nichols, South St. Paul and probably others, make up a list that will keep the visitor busy.

Many of us, in former years, always visited the Hi-Way gardens of the late R. W. Jones, This place is now owned by a Mr. Johnson, who has restored it to much of its former beauty.

In addition to the above there are many private gardens that possess collections unequalled anywhere. The only peony lacking in most of these gardens is the Tree Peony, though a few adventurous souls, like Walter Lindgren, grow a few with good success as they are willing to use every means to keep them from being winter kil-

led. A number of these private gardens now contain large collections of the herbaceous hybrids.

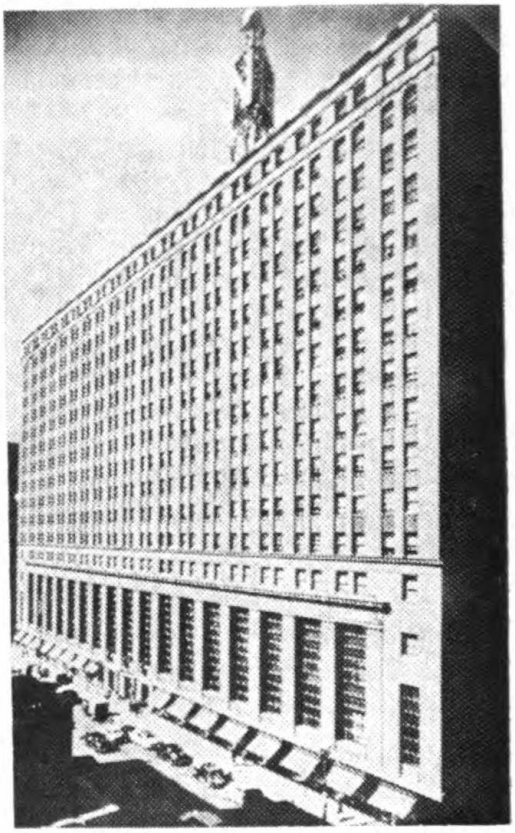
Until the past few years, few growers bothered to grow the single and Japanese types. Now they are appearing in increasing numbers, though it seems rather difficult for many to get together ten or fifteen varieties for the collection classes.

Just fifty-one years ago, peony history was made by the introduction of a large number of new varieties by the Brand Peony Farms. Of these five still are numbered with the 105 Most Popular Peonies. This list for 1957 contains 26 varieties orginated around the Twin Cities of which 14 are Brand originations, seven Franklin, four Lins and one Edlund. Those who wish to see new varieties will rarely be disappointed as nearly every year sees a number of new ones on the Seedling table.

This year will mark the Thirty Ninth Annual Exhibition of the Minnesota Peony and Iris Society who are our hosts in co-operation with the Minnesota State Horticultural Society. This latter Society has charge of the Arrangement Section and their classes are usually well filled with beautiful arrangements.

For the past twenty or more years the Peony Show has been held in the air conditioned lobby of the Northwestern Bank, which is situated in the heart of the business district. The address as given is Seventh and Marquette, but there are a number of entrances from which the banking floor may be reached. Those who expect to set up their exhibits on Sunday evening will use the Marquette entrance only and take the elevator to the second floor. Those coming at other times will use either the Sixth or Seventh Street entrances both of which have escalators to the banking floor.

Knowing that some history of this bank will be interesting to our readers, we here present a short paper sent us by Mr. C. Stanley Rude, Assistant Advertising Manager of the Bank.



NORTHWESTERN NATIONAL BANK

The Northwestern National Bank of Minneapolis first opened for business in 1872, the same year in which the village of St. Anthony and Minneapolis were consolidated.

Its founders were instrumental in the organization of the city of Minneapolis and were pioneers in the development of the northwest. Their aim was the establishment of a financial institution upholding the best traditions of the banking business and one which would be a leader in promoting the interests of the community.

In 1899, when Northwestern Bank moved into larger quarters at 2nd Avenue South and 3rd Street, its personnel consisted of 33 employees. Today Northwestern employees total more than 1600, including those in the Lincoln, Lake Street and North American Offices.

The present Northwestern Bank Building was completed in 1930. It is one of the finest structures of its kind in the upper midwest with the bank itself occupying nearly all of the first five floors. Many top firms, both national and local occupy rental space on the remaining eleven floors.

The main bank lobby measures 330 feet long and 130 feet wide with a ceiling of 37 feet. It is the longest straight banking lobby in the world. The twenty-four, fluted Grecian Doric Bottacino marble columns around the lobby perimeter are patterned after those of the Parthenon in Athens, Greece.

Today, more than ever before, Northwestern Bank is playing a leading role in the development of agriculture, business and industry in the area. Northwestern Bank maintains a warm, friendly relationship with customers and Northwestern Bank people are continually active in the affairs of the community.

Minnesota's Centennial

This year, the State of Minnesota is celebrating its One Hundredth Birthday. Virginia and the American Peony Society offer their hearty congratulations. Both have played their part in its development. One family, the Winston Brothers from Hanover County, Virginia, were pioneers in many enterprises, especially rail r o a d building, which contributed to the upbuilding of the State and the Twin Cities.

Officers
OF THE
Minnesota
Peony and Iris Society

President, Earl H. Maffett; 1st Vice-President, W. G. Sindt; Secretary, Mrs. L. V. Franklin; Treasurer, Mrs. Mildred Stover; Show Chairman, G. H. Greaves; Show Superintendent, Earl H. Maffett.

GENERAL INFORMATION

HEADQUARTERS: The Curtis Hotel, Tenth Street and Fourth Ave., South, Minneapolis, Minnesota. As several conventions are scheduled for the same dates as our meeting, it is advisable to make your reservations as soon as possible to avoid disappointment.

Hotels: There are a number of excellent hotels within a few blocks of the Northwestern Bank. Some of them are the Curtis (Headquarters), Radisson, Dyckman, Nicollet.

Motels: There are many good ones in the outskirts of the Twin Cities. We do not have a recent list for publication at this time.

RESERVATIONS: Please make your reservations personally and do it quickly.

SHIPPING PEONIES FOR DISPLAY. A. Prepay all charges. Small packages may be shipped by Air Mail or Parcel Post. Large packages should be shipped by either Air Express or Railway Express. All shipments should be made in time to reach Minneapolis by June 22. If they are not to be placed in cold storage they should be addressed:

National Peony Show
% Northwestern National Bank
Seventh and Marquette,
Minneapolis 2, Minnesota.

B. If your blooms are to be put in cold storage, and held for the

show, ship prepaid any time after June 5th. They will be stored free of charge and delivered to the show floor Sunday P.M., June 22. Include full instructions as to classes and any other necessary directions.

Address the shipments to National Peony Show (For Storage) % R. L. Gould & Co., 500 Jackson Street, St. Paul, Minn.

For further information write Earl H. Maffett, 6755 Harriet Avenue, Minneapolis 23, Minn. or L. W. Lindgren, 1787 W. Minnehaha Ave., St. Paul 4, Minn.

RULES

All entries must be mailed to the Secretary Minnesota State Horticultural Society, University Farm, St. Paul, on or before June 17, so space may be reserved.

A. All exhibits shall be in place by 11 o'clock A.M. of the opening day.

B. All peony blooms staged for competition must have been cut from plants owned by the exhibitor, except those used in arrangements.

C. Entry tags with class number visible, and the exhibitor's name concealed, will be furnished the exhibitor on arriving at the show room.

D. The number of entries in each class is limited to one.

E. All varieties must be correctly named except those in baskets and vases for artistic effects. Wood labels must be used .

F. Double varieties shall be shown except where otherwise indicated.

G. The American Peony Society's manual will govern type of blooms.

H. Printed elsewhere in this program is a color classification of most of the varieties usually shown. This must be followed.

I. All containers, except in the arrangement classes, will be furnished by the exhibition committee.

J. Twenty-five dollars in cash will be awarded to winners in each of the exhibitor's classes, Open, Advanced Amateur and Novice Amateur, divided as follows: $12.00, $8.00, $5.00, according to the scale of points. A peony root will be given to each exhibitor in Novice Amateur Classes who did not win any awards.

Exhibitors may accumulate points only in their respective class. They may make entries in more than one class, but can only accumulate points in their own class.

K. Prizes will not be given to unworthy exhibits. When there is only one entry in a class the judges may award it first, second or third or nothing at their discretion. Their decision must be accepted as final.

Exhibitors are cautioned to show the exact number of blooms called for in each class.

L. Any exhibitor having exhibited at the Peony Show five years, automatically becomes an Advanced Amateur.

M. The bank will be open Sunday afternoon and evening to prepare exhibits. All entries must be in place by eleven o'clock Monday morning.

N. Show will not be dismantled until ten minutes after closing so as to give all visitors time to leave. All visitors must leave the floor and no flowers will be given away inside the show room.

Catalogs or price lists will not be distributed at the show.

. . . PROGRAM . . .

Sunday, June 22, 1958

The Northwestern Bank exhibition room will be open for the

benefit of those exhibitors who wish to place their blooms in water and set up their exhibits, the afternoon and evening of the 22nd. They may remain all night if they wish. Use the Marquette entrance, which is about the middle of the block and take the elevator to the second floor.

Monday, June 23, 1958

The exhibition room will be open for the placing of exhibits until 11:00 a.m. when all exhibits must be in place. Judging will begin at that hour.

Exhibitors must stage their own blooms except that an out-of-town exhibitor who cannot be present, should notify the Show Chairman, Mr. G. H. Greaves, 2200 Doswell Avenue, St. Paul, 8, Minnesota, furnishing full information, and a committee will stage his blooms.

The show will be open to the public as soon as the judging is done, about noon, though, due to the fact that the show is staged in the lobby of the bank, the public cannot be excluded at any time.

The first directors' meeting will be held at some time during the afternoon, time and place to be decided after arrival.

The Banquet will be held in the Solarium Room of the Curtis Hotel, 10th Street and Fourth Avenue, South, at 7 P. M. Following the banquet the annual meeting of the members will be held in the same room.

The show will close at 9 P. M. and open again the morning of

Tuesday, June 24, 1958

9 A.M. Show opens and closes at 5 P.M.

The second directors' meeting will be held at the time and place most convenient to the members of the Board. All directors are requested by the President to arrange to stay over night and be prepared to attend an adjourned meeting on Wednesday the 25th.

SCHEDULE

SWEEPSTAKES: The persons winning most points in the Open, Advanced Amateur and Novice Amateur Classes will be awarded special prizes. The figures following each class indicate the points scored for first, second and third place.

Only albiflora (lactiflora) varieties may be entered in any class unless otherwise specified.

A GRAND CHAMPION OF THE SHOW will be chosen by the judges appointed for the purpose from any flower shown in competition that may merit the award.

Show Hours: Monday, June 23, Noon to 9:00 P. M.

Tuesday, June 24, 9:00 A. M. to 5:00 P. M.

OPEN CLASSES

Open to all who grow peonies whether for pleasure or profit.

100A. COURT OF HONOR. A CHAMPION for each of the eight sections of this class as specified below, will be chosen. All exhibitors are urged to enter their best blooms in this class and are limited to six blooms double, not more than two in any one color, and to two single, two Japanese and two herbaceous hybrids. Also to be eligible to enter this class each exhibitor must have entered three or more peony classes and actually made entries in same.

(a) Double—white.
(b) Double—flesh.
(c) Double—light pink.
(d) Double—dark pink.
(e) Double—red.
(f) Single—any color.
(g) Japanese—any color.
(h) Herbaceous hybrid—any type or color.

100B. COLLECTION of five double varieties, one bloom each, any color, each bloom in a separate container.

The Silver Medal of the American Peony Society will be awarded the winner in this class.

NOTE: All blooms entered in this class (100B) will be eligible for competition with those entered in Class 100A. Color must be marked on each label.

101. GOLD MEDAL CLASS. Collection of fifty varieties, one bloom each. Not more than twenty blooms may be single and/or Japanese types. Hybrids are not permitted.

35-25-15

102. Collection of ten varieties, double, three blooms each, any colors.

25-20-15

103. Five blooms, one variety, double-white or flesh.

10-7-5

104. Five blooms, one variety, double-light pink.

10-7-5

105. Five blooms, one variety, double-dark pink.

10-7-5

106. Five blooms, one variety, double-red .

10-7-5

107. VISITORS' CLASS. Not open to exhibitors from the State of Minnesota. Five different named varieties, one bloom each, any type or color. A special award will be made in this class.

108. One bloom, double-white.

5-3-1

109. One bloom, double-flesh.

5-3-1

110. One bloom, double-light pink.

5-3-1

111. One bloom, double-dark pink.

5-3-1

112. One bloom, double-red.

5-3-1

113. Three blooms, one variety, Japanese-white or flesh.

7-5-3

114. Three blooms, one variety, Japanese-pink.

7-5-3

115. Three blooms, one variety, Japanese-red.

7-5-3

116. Collection of ten varieties, Japanese, one bloom each.

15-10-5

117. Three blooms, one variety, single-white or flesh.

7-5-3

118. Three blooms, one variety, single-pink.

7-5-3

119. Three blooms, one variety, single-red.

7-5-3

120. Collection of ten varieties, single, one bloom each.

15-10-5

121. Three blooms, one variety, any type, hybrid-white, flesh or yellow.

7-5-3

122. Three blooms, one variety, any type, hybrid-pink.

7-5-3

123. Three blooms, one variety, any type, hybrid-red.

7-5-3

124. Collection of ten varieties, hybrids, one bloom each.

15-10-5

125. Collection of three varieties, hybrids, one bloom each.

7-5-3

126. One bloom, any type, any color, tree peony.

5-3-1

127. Three blooms, one variety, any type, any color, tree peony.

7-5-3

128. Handle basket, greatest diameter of container not to exceed 20 inches, main feature to be peonies. 10-7-5

129. Handle basket, greatest diameter of container not to exceed 12 inches, main feature to be peonies. 10-7-5

130. Small vase of peonies, artistically arranged, with or without other flowers or foliage. 10-7-5

131. Large vase of peonies, artistically arranged, with or without other flowers or foliage. 10-7-5

132. EAST-WEST. Open only to team members. Two teams of five persons each, one team from East of the Mississippi River and one team from West of the River, except that all of Wisconsin and Minnesota shall be counted as West. Each team member shall show one bloom each of six varieties, 30 blooms in all for each team. The following cash prizes will be awarded to the team members winning as follows: First: $25.00. Points: 25. Second: $20.00. Points: 20. Third: $15.00. Points: 15. Fourth $10.00. Points: 10. Fifth: $5.00. Points 5. The above points are for team members only. These cash awards are offered by the Minnesota Peony and Iris Society.

ADVANCED AMATEUR CLASSES

201. SILVER MEDAL CLASS. Open to Advanced Amateurs and Novice Amateurs. Collection of twenty-five different varieties, one bloom each. Not more than ten blooms may be single and/or Japanese types. Hybrids not permitted. 25-20-10

202. Collection of seven named varieties, double, three blooms each. 25-20-10

203. Three blooms, one variety, double-white. 7-5-3

204. Three blooms, one variety, double-flesh. 7-5-3

205. Three blooms, one variety, double-light pink. 7-5-3.

206. Three blooms, one variety, double-dark pink. 7-5-3.

207. Three blooms, one variety, double-red. 7-5-3

208. Three blooms, one variety, Japanese-any color. 7-5-3.

209. Three blooms, one variety, single-any color. 7-5-3.

210. Collection of five named varieties of hybrids one bloom each, any type, any color. 10-7-4

211. Three blooms, one variety, hybrid, single, any color. 7-5-3

212. Three blooms, one variety, hybrid, semi-double or double, any color. 7-5-3.

214. Small vase of peonies with or without other flowers or foliage. 9-6-3

213. Basket, main feature to be peonies. 9-6-3.

215. Large vase of peonies with or without other flowers or foliage. 9-6-3

NOVICE AMATEUR CLASSES

301. BRONZE MEDAL CLASS. Open only to Novice Amateurs. Collection of fifteen different varieties, one bloom each. Not over six blooms may be Japanese and/or single types. Hybrids are not permitted. 25-20-10

302.One bloom, double-white or flesh. 5-3-1

303. One bloom, double-light pink. 5-3-1

304. One bloom, double-dark pink. 5-3-1

305. One bloom, double-red. 5-3-1

306. Three blooms, one or more varieties, one container. 9-6-3.

307. Collection of three varieties, one bloom each. Limited to those who have never won a peony prize in a State Show. 9-6-3

308. One bloom, Japanese—any color. 5-3-1

309. One bloom, single-any color. 5-3-1

310. One bloom, hybrid, any type or color. 5-3-1

311. Basket, main feature to be peonies. 9-6-3

312. Vase of peonies with or without other flowers or foliage. 9-6-3

313. Collection of five varieties, one bloom each. Limited to exhibitors who have never shown peonies before. First: $10.00; Second $5.00; Third $3.00, plus additional valuable peony roots.

ARRANGEMENT CLASSES

Open To All

AC1. MINNESOTA CENTENNIAL SPECIAL. Exhibitors are free to use any design or motif in this class. Peonies to predominate. Gilbert H. Wild and Son of Sarcoxie, Missouri, offer three exceptional prizes for this class: First: Gilbert H. Wild peony; Second: Virginia Nance peony. Third: Gene Wild peony.

AC2. JUNE GLORY. Arrangement of peonies combined with other flowers and foliage, suitable for living room occasional table.

AC3. VICTORIAN. Arrangement of garden flowers with peonies predominating and foliage in the Victorian manner, accessories permitted.

AC4. ORIENTAL. Arrangement inspired by Japanese design. Single or Japanese type peonies to be used.

First, second and third awards to be made in classes AC2, AC3, and AC4. Prizes will be peony roots.

SEEDLINGS AND NEW VARIETIES

Any variety that has not been offered for sale to the public shall be classed as a SEEDLING. It must be either named or numbered.

Any variety of recent origin that has been named and offered for sale to the public shall be recognized as a NEW VARIETY.

These classes are open to all and any color, type, species, hybrid, including tree peonies, may be shown.

All awards in classes 401, 402, 403, and 404 will be made by the Standing Seedling Committee of the American Peony Society. Their decisions are final.

Certificates of Honorable Mention may be awarded in classes 401, 402 and 403. First Class Certificates, bronze, silver or gold medal certificates may be awarded in classes 402 and 403.

401. SEEDLINGS that have never been divided or propagated. Each exhibitor is limited to five entries. One to three blooms of each variety may be shown. Only Certificates of Honorable Mention may be awarded.

402. SEEDLINGS that have been been divided and propagated. Each exhibitor is limited to ten varieties. Three blooms of each variety must be shown.

403. NEW VARIETIES. (See definition above.) Each exhibitor is limited to ten varieties. Three blooms of each variety must be shown.

404. AMERICAN HOME ACHIEVEMENT MEDAL. Offered by the American Home Magazine of New York to the originator of the best and most distinctive new peony shown, specifically, in this class, under rules specified by them, as follows:

1. A specific entry must be made in this class. The number of entries by any one exhibitor is not limited.

2. Not less than three (3) blooms of each variety entered must be shown.

3. Any type, species, or hybrid, including tree peonies, may be shown.

4. The varieties shown must have distinctiveness as compared to existing varieties.

5. No variety that has been offered for sale for more than three years prior to the date of this show, may be entered.

6. No variety that has won this award in any previous year, may be entered.

7. Every variety entered must be named and the name approved by the Standing Seedling Committee of the American Peony Society. No awards will be confirmed until this provision has been met.

8. The award shall be made by the Standard Seedling Committee of the American Peony Society.

9. A photograph, either in color transparency or black and white, preferably not smaller than 4" x 5", must be furnished by the winner to the American Home Magazine free of charge.

SPECIAL MEDALS

In addition to the medals mentioned in the above classes, the following medals may be awarded at the discretion of the judges:

THE JAMES BOYD MEMORIAL MEDAL, donated by the Pennsylvania Horticultural Society, will be awarded to the exhibitor having the outstanding exhibit, collection or display in the opinion of the judges appointed to award this medal.

THE B. H. FARR MEMORIAL MEDAL in bronze for the best double or semi-double albiflora (lactiflora) variety in the show.

AMERICAN PEONY SOCIETY BRONZE MEDALS for:

The best single type albiflora variety that is shown.

The best Japanese type albiflora variety shown.

The best herbaceous hybrid shown.

COLOR CLASSIFICATIONS

DOUBLE

White

Alesia
Alice Schneider
Ann Cousins
Baroness Schroeder
Casablanca
Dr. Christopher Graham
Dr. J. H. Neeley
Elsa Sass
Ethel Mars
Evening Star
Festiva Maxima
Harry F. Little
J. C. Nicholls
Joseph Christie
Judge Snook
Kelways Glorious
King Boreas
Le Cygne
Louise Lossing
Marcella
Margaret Lough
Mary E. Nicholls
Mary L.
Mildred May
Miss America
Moonglow
Mother's Choice
Mothers Day
Mrs. A. B. Franklin
Mrs. A. M. Brand
Mrs. Frank Beach
Mrs. J. V. Edlund
Thura Hires
Victory

Blush

A. B. Franklin
Alice Harding
Alma Hansen
Blush Queen
Dorothy J.
Florence Nicholls
Gardenia
George J. Nicholls
George W. Peyton
Hans P. Sass
La Lorraine
Lillian Wild
Mattie Lafuze
Mrs. Harry F. Little

Mrs. J. H. Neeley
Nancy Nicholls
Solange

Light Pink

Autens Pride
Ave Maria
Betty Minor
Doris Cooper
Dolorodell
Edwin C. Shaw
Elizabeth Huntington
Ella Christiansen
Ella Lewis
Florence Ellis
Frances Mains
Greer Garson
Hansina Brand
Irving Flint
Katherine Havemeyer
Lottie Dawson Rea
Lulu Little
Mandaleen
Marie Crousse
Mary M. Fischer
Minuet
Mme. Jules Dessert
Moonstone
Mrs. F. D. Roosevelt
Mrs. W. L. Gumm
Myrtle Gentry
Nick Shaylor
Ramona Lins
Reine Hortense
Pres. Wilson
R. A. Napier
Therese
Tourangelle

Dark Pink

Alice Reed Bates
Anne Bigger
Blanche King
Cathie Ann
Edith Scovell
Emma Klehm
Ensign Moriarty
Helen Hayes
Loren Franklin
L. W. Pollock
Martha Bulloch
Mons Jules Elie
Mrs. Livingston Farrand
Paul Bunyan
Pres. F. D. Roosevelt
Souv. de Louis Bigot
Sarah Bernhardt
Tondeleyo
Victoire de La Marne
Walter Faxon

Red

Andy
Bonanza
Burma
Carolyne Mae Nelson
Grover Cleveland
John L. Crenshaw
Judy Becker
Kansas
Karl Rosenfield
King Midas
Longfellow
Lowell Thomas
Mark Twain
Mary Brand
Matilda Lewis
Mons Martin Cahuzac
Mrs. Bryce Fontaine
Philippe Rivoire
Ruth Clay
Red Cloud
Ruth Elizabeth
Sir John Franklin
Tempest
W. E. Blanchette

Japanese

White

Carrara
Lotus Queen
Isani Gidui
Moon of Nippon
Plainsman
Sagamore
Toro no Maki
White Gold

Pink

Ama-no-sode
Gypsy Rose
Gypsy Queen
Largo
Tamate Boku
Tokio
Vanity
Westerner

Red

Charm

Dignity
Hari ai nin
King of England
Mrs. Wilder Bancroft
Mount Palomar
Nippon Beauty
Nippon Brilliant
Onahama
Sword Dance

Single

White

Dunlora
Le Jour
Krinkled White
Pico

Pink

Dawn Pink
Helen
Loretta Frank
Sea Shell

Red

Arcturus
Florence Bruss
Imperial Red
Kankakee
Man o'War
Pres. Lincoln

HOW TO CUT PEONIES

Peony show time approaches and many new exhibitors have questions in mind which they would like to have answered.

Setting dates for peony shows which would suit all gardens is obviously impossible. Some gardens are early and some are late. Some peonies are early and some late. It is our endeavor to set the show date at a time when the majority of growers can bring their blooms direct from the garden. Those who have extra early locations and those growing the extra early hybrids will have to resort to refrigeration to hold them till show time. In order to do this it becomes necessary to cut the peonies at the proper time and place them in storage. A temperature of thirty six degrees is best but a temperature as high as fifty degrees is satisfactory if the blooms are to be stored for a week or less. Blooms can be kept for over a month when stored at thirty six degrees. A very important point to keep in mind is that blooms should be chilled for several hours before being brought to the show room. This chilling prevents wilting. Peonies are best stored with the stems in about eight inches of water.

Most new exhibitors are also troubled as to what stage of development buds should be cut. The following types may be cut when the bud is showing color or when the first petals begin to unfold: singles, Japanese, semi-doubles. The full double type such as Hansina Brand should not be cut until almost fully open. It is important to place in cold storage as soon as possible after cutting.

It is a good practice to place the buds in paper bags before placing in storage. The procedure is this: cut a hole in the bottom of the bag and slip the stem thru the hole, the open end of the bag is then closed by twisting. The bag gives protection to the petals against bruising. The one pound bag is about the right size for singles, Japs and semi-doubles while the two pound bag is more satisfactory for the larger and fuller blooms.

Cut stems about sixteen inches long and remove all foliage except the top leaf. However the stems should be cut so that at least two leaves are left on the plant. When the buds are brought to the show room, cut off the ends of the stems about a half inch, place in water and carefully remove the paper bag. It's a thrilling sight to see the buds unfold into beautiful blooms and it is even more thrilling to see a ribbon pinned on your exhibit.

FIFTEENTH ANNUAL PEONY SHOW of the PEONY UNIT OF OKLAHOMA

will be held on May 10-11, 1958. in Oklahoma City, Oklahoma. Those desiring more detailed information should write Mrs. Opal M. Hamilton, 3029 N. W. 23rd Street, Oklahoma City, 7, Oklahoma.

We hope as many of our members will attend this show as can do so. We are sure they will see a good one.

OTHER PEONY SHOWS

As we go to press we have not received any definite information as to the dates of the many other peony shows that will be held this spring. However we suppose that the following shows will be held:

Takoma Horticultural Club, Takoma Park, Maryland; Late May.

North Dakota Peony Society, Grand Forks, North Dakota. Late June.

Duluth Peony and Iris Society, Duluth, Minnesota, Mid-July.

Superior Peony Club, Superior, Wisconsin, Mid-July.

Peony and Rose Show of the Horticultural Society of New York, Essex House, New York, Mid-June.

Peony and Rose Show of the Massachusetts Horticultural Society, Horticultural Hall, Boston, Massachusetts, Mid-June.

Peony and Rose Show of the Ottawa, Canada Horticultural Society will be held the week of June 23rd.

We do not know the plans of the Fifth District.

We hope those in charge of the above shows and of any other peony show will send us complete accounts of these shows as soon as the shows are over, being sure to give the winning varieties.

There will certainly be the usual display of blooms at Swarthmore College, Swarthmore, Penna.

Hybrids will probably be at their best about May 15 to 25th and they will be followed by the albifloras which will last until about June 10.

The tree peonies were moved to a new location this Spring so there will be little bloom on them.

The Kingwood Center planting should give some good flowers this year, the tree peonies possibly about May 20 to the end of the month, the hybrids about the same time and the albifloras until June 10 or maybe slightly later.

The Wild gardens is Sarcoxie, Missouri should have blooms from about April 25 for the hybrids to May 30 for the regulars.

Myron Bigger's Garden in Topeka will probably start about May 15 for the hybrids and last until about June 10 th for the regulars.

The gardens around Chicago should be a few days later. Tuckdawa, Peru, Indiana, should be from about May 25 to June 10 and the Wassenberg Gardens about the same time. The Sundown Gardens of the Knapps, Carmel, Indiana, will be a few days earlier.

The Milwaukee gardens will be somewhat later than Chicago. Mr. Krekler's gardens at Somerville, Ohio, should be from about May 10 to June 5 and the Atha Gardens, West Liberty, Ohio, a day or two later. The Curtis Gardens Cincinnati, Ohio. should have tree peonies in bloom soon after May 1; Mr. Alexander in Bowling Green, Ohio, about June 1.

Mr. Domoto's tree peonies will be in bloom much earlier than any others maybe by April 1. This is in Hayward, California.

The gardens in Oregon and Washington bloom about the same

time as the Illinois peonies do.

Our President's tree peonies will probably start the last of April.

The tree peonies on Long Island will start about May 10. The Boston peonies start about June 5 or 10.

Probably the earliest peonies will be those of Mr. Rubel in Corinth, Mississippi, which open in April we think, as do those in Birmingham. Mr. Meacham's peonies, Fort Mill, South Carolina, bloom a few days later. Our Virginia peonies start in the last ten days of April and last until nearly June 1.

THE FOURTEENTH VAN WERT PEONY FESTIVAL

On April 9, the Peony Queen, Queen Jubilee XIV, will be chosen from the many contestants from the high schools near by. The Coronation Ball will be held on June 10 in the evening, the regular festival day will be June 11 with parades both afternoon and evening.

The Spring Flower Show of the Lynchburg, Virginia Council of Garden Clubs will be held in April. The main feature will be an exhibit of tree peonies in bloom furnished by Marinus Vander Pol. Further information will be in the June Bulletin.

FORCING TREE PEONIES

Mr. Marinus Vander Pol of Fairhaven, Massachusetts, has kindly sent us the following instructions for forcing tree peonies into bloom for the Minneapolis show this year. They can easily be adapted for any other show.

"Should these good people wish to bring into bloom a tree peony for June 23-24, they should dig as soon as frost leaves the ground such plants as can be found suitable for forcing. Dig without disturbing the roots, balling the plants and immediately put into freezer to be kept until May 15th. Allow three days at 40 degrees temperature to thaw out, then for 20 days keep in good light, not brilliant sunlight, at 55 deg., buds will be showing. Again cool off for about six to ten days at 45 degrees to swell buds and return to 55 to 60 degrees to bloom. Some variations will appear because of the characteristics of the different types. Tama-fuyo is the easiest to force. Yae-zakura, Howzan and Mount Rokko will force easily also. Be sure to keep top growth dry and roots on the moist side."

MOST POPULAR PEONIES

Unless otherwise instructed we shall have a poll on the Most Popular Peonies for 1958. Please all be prepared to fill out and send in this poll when requested, probably about July 10.

Mr. Arthur E. Rigby of New Castle suggests that we take it only every two years. He thinks it a valuable guide, especially for new members in buying. He would also like to see a separate vote on the new varieties not over twelve years old and the votes to come from those members who know them. These varieties do not get a fair chance when voted on by the entire membership as too few have them and so they stand far down on the list.

Gilbert H. Wild and Son are donating for prizes in the AC 1 arrangement class at Minneapolis this year three of their new varieties. For the information of those who may not know these peonies Gilbert H. Wild is two-toned pink. Gene Wild is light pink and Virginia Nance is purple or dark lavender pink. All are double.

PEONY PERSONS — Lincoln E. Nichols
A Most Unforgettable Character

Robert W. Mann of Chillicothe wrote of Lincoln Nichols of Chillicothe as "The Most Unforgettable Character I Ever Met" for a college class composition at William Jewell College, Liberty, Mo. He received a grade of "E" for the composition, which appears below.

This is not a critique, whatever it may seem. Rather, it is intended as a brief correlation of the significant influence in the life and personality of one Lincoln E. Nichols, self-styled horticulturist, wit, father of seven, man of God, by avocation (not vocation) and, ostensibly, economic necessity, furnace fireman and farmer. Impossible? Perhaps. An eccentric? Yes, perhaps this, too. Who is to say. This discussion concerns itself with the manifestations; he who knows so little of himself cannot hope to evaluate the philosophy of another.

These who knew him in his youth and those who know him today, would agree that he possesses a keen sense of values, material and spiritual, a compelling sense of destiny and responsibility to The Creator that leads him to plan his life in a sweeping panorama of decades, quarters and halves of a century. Eschewing personal comforts and "the easy life" he likens himself unto Noah, who labored for forty years to build the Ark, reflecting at fifty years of age that he is in the midst of the first half of his life's work. The first half was spent in rearing his children and in contemplation. The last half is to be spent in making a contribution to the common good by research in horticulture.

He is a simple, vigorous man who denies the creature comforts and welcomes the rigors of life. Perhaps this much of the description is superfluous, or so he might him-

self insist. You may have gathered that self denial is an ingredient of the character of a man who in this era rears seven children by tending furnaces and gardening. And so he would himself once again insist that here is suggested another superfluous element: that much of our way of life is material and frivolous. Consider the auto. A needless mechanical contrivance which depreciates to the tune of $500 at the moment of possession. Walking is healthful and there is time. He chooses not to indulge. Admittedly an inveterate tightwad: "I keep my money and how and let me tell you when I spend several hundred it is 'serious.'" Yet he is a generous man who has developed a plan of family finance from which evolves two general types of money: family pocketbook and personal. Whatever extra money, if any, each month is divided among the members of the family, $10 going to "Mrs. L. E.," before distribution seven months of the year, $5 for five months. This is the personal money with which each member of the family does as he pleases.

He is a man who loves beauty, at certain seasons planting literally acres of various flowers. In this way he seeks to please God by providing flowers without charge to churches and for the sick. Uppermost in his efforts is the development of a method of mulch culture, which he hopes will be recognized as an important contribution to the science of agronomy. These activities are co-mingled with truck farming, all accomplished with virtually no assistance from the mechanization commonly employed by agriculturists of today.

He is obviously many things to many people. This is as true of those who know him intimately as of others. A controversial sort of man. A useful man, to himself and to his fellows. A man who considers he has something important to do and who is determined to do it or be found dead nearby. One who believes that a man dies when he wilfully limits himself and withdraws from life.

Some may wonder whether he is a man of character, or just a "character." Either or both. Whatever may be said of him, men of his mettle contribute little to the stifling anonymity so common to our age.

ESCAPE FROM A BOULDER

"Boulder rolls back, pinning man to the ground. It was necessary to take Mr. Nichols to the Chillicothe hospital to replace his arm in its socket."

This condition put me in a very embarrasing situation as well as pain and inconvenience. How come?

With a record beginning by being rocked in a Methodist cradle and being a member of the household of Faith these years, and a firm believer in God's watchful loving care, also a Sunday School teacher more than 30 years—was my face red.

The moment I saw the boulder, my directive was "Roll it over in the middle of the excavated area and use it as a footing for a pillar."

But I had a "better" idea—roll it up—out—away over where I was making an impressive rock garden and let it be the crowning rock. !

Unaware of the serious situation I was in—deliberately disregarding the clear directive of my faithful Guardian Angel—I rolled it over and up—up to the top of the steep incline—almost.

Slipping my right arm under the rock I made one last supreme effort—my foot silpped—boulder roll-

ed back on my arm and we both slid down grade.

It was 4:30 a.m. and it took an hour for me to get back in the house.

When able I propose to roll it over as directed, and the pillar that rests on it will remind me God's ways are best.

—Lincoln Nichols

LINCOLN E. NICHOLS

Mr. Nichols, the subject of the above articles, has been a member of this Society for several years.

In an article titled The Nichols Method of Mulch Culture, published in the March 1954, Bulletin No. 132, you will find his story of his first endeavors along this line and also some of his life's story.

Also in the June 1954 issue, No. 133, there is an article from his pen on Drainage for Peonies.

He has lately published a Handbook on the subject. See Bulletin for December 1957, page 45.

He tells us that he now has 8 acres of peonies besides many other flowers and has had splendid results from his method.

He also says that the author of the above, Robert W. Mann, is the son of a neighbor in his pre-school days .

MARINUS VANDER POL WINS

Once more Mr. Vander Pol has shown that tree peonies can be successfully forced. At the Boston Spring Flower Show of the Massachusetts Horticultural Society, on March 10, 1958, he won first in the class for Informal Gardens, featuring Tree Peonies. He also won a Gold Medal for quality of exhibit, the Pennsylvania Horticultural Society's Gold Medal Certificate for an exhibit of special merit which stimulates an interest in Horticulture, and also a certificate for Horticultural Perfection.

Here are the varieties he used for his exhibit:

Athlete, double, rose pink (European).

Comtesse de Tudor, double, bright salmon. (European).

Fuji-no-mori, semi-double, watermelon pink. (Japanese).

Gabisan, double, white, (Japanese).

Hana-kisoi, double, cherry. (Japanese).

Howzan, double, light pink. (Japanese).

Kokamon, double, maroon. (Japanese).

Moutan, single, red. (Species).

Naniwa - nishiki, semi - double. (Japanese).

Orihime, double, Chinese red. (Japanese).

Reine Elizabeth, double, rose red. (European).

Surprise, double, yellow, salmon and purple combination. (Lutea hybrid).

Tama-fuyo, double, blush pink. (Japanese).

Teikwan, double, brilliant red. (Japanese).

Yae-zakura, double, cherry. (Japanese).

It will be noted that three of the above are European doubles, eleven of Japanese origin which are probably more semi-double than double, certanly they are not as fully double as the European doubles, one a lutea hybrid from Lemoine, and one the species from China, Moutan.

We hope that more growers of tree peonies will take the trouble to make exhibits of forced tree peonies in these Spring Flower shows. There will be one from Mr. Vander Pol at the Lynchburg, Va. show the last of March.

SECRETARY'S NOTES

THE WINTER

The winter, which we hope is now about over, has been an erratic one in many places. Reports from Minnesota indicate that they have had a comparatively mild one with little snow. Mr. R. F. Koby writes from Superior, Wisconsin, which is at the western end of Lake Superior, "We have had a great winter. Got cold a couple of times, dropped to 24 below, but it did not last and our snow has been very small, just enough to cover the ground. You would have enjoyed a trip with us December 28, 1957, when we drove over to Houghton, Michigan, to visit a day with Lois and Herb Bateman (Lois is his daughter). We started out in a very nice day and drove 200 miles in the same kind of weather. It is 216 miles over there. Then we hit a little misty snow. It kept getting heavier and heavier and in the next ten miles it was a real snow. Then a heavy wind, 25 to 30 miles and the snow was swirling so you could hardly see over the car hood. Many cars did stop, but we kept going slowly by opening the windows and looking out, and when we reached the bottom of the long hill that leads into Houghton, there stood many cars on the far side of the road, not daring to head into the heavy snow. We found by that time that we were in 18 inches of fresh fallen snow that had accumulated from about 10 a.m. 16 miles of travel and 18 inches of fresh snow was our reception." The winter around the Twin Cities has been milder than usual with not so much snow. They are somewhat uneasy about the peonies on account of the lack of the usual snow covering, but we doubt if they will be affected. Mr. Robert A. Thompson of McHenry, Illinois, reports a hard winter. Mr. Fador Kernin of Shelby, Nebraska, says they have had nothing but rain for many months and it has been hard on the crops. For a year or two before they had almost no rain at all.

Mr. O. C. Crossley of Halifax, Nova Scotia, says they had practically no snow and little cold weather until February. Now some snow but still moderate temperatures.

The West Coast seems to have had a lot of rain and mild weather. We know the South has had an extremely cold winter, which has probably not hurt the peonies. They have had plenty of winter in Pennsylvania and New York. Right now all Eastern Pennsylvania is under snow up to thirty-six inches deep, all of which has fallen within the last two or three days. Over a million homes are without power which means heat too in most instances. Washington had over 300,000 homes without power also. The headlines in the Baltimore Sun of today say "Snow measuring up to 2 feet leaves thousands of homes in State without electricity ,heat or telephone service." Here at Rapidan we have had four heavy snows in the last month. But we have had almost no power or telephone failures so far, none in Rapidan. This is written March 21, the first day of Spring. Most of the snow is now gone, though there was plenty on the hills this morning. Only two or three peonies have shown above ground. Usually many are up a foot by now. Tree peonies are still almost dormant, only one showing much growth. Maybe we shall have some bloom this year.

The radio is just announcing

that maybe as much as two feet of snow may fall in New England tonight.

* * *

Mr. R. H. Giff writes from Sarnia, Ontario, that he has tried over the years to do some grafting of tree peonies, faithfully following directions, but only one graft has ever taken. He used the cleft method, splitting the root stock down the middle and placing the graft in this cleft in the center. He wants some advice as to what is wrong. It would seem that none of the directions caution that the cambium of the root stock and the scion should come into contact which is essential for union. So he hopes he has found his trouble from reading Mr. Stoke's article in the December, 1957 Bulletin in which he calls particular attention to this fact.

* * *

Mr. Charles H. Stewart of Ottawa, writes of his peony activities, transplanting many last fall and adding twenty-six new ones, including Ann Cousins and some of Art Murawska's varieties. He expects to visit Chicago June 8-12 and hopes to be able to visit some of the gardens there and see many of the fine varieties he reads about and does not yet have. He is particularly interested in hybrids now, having only four, two of which are certainly among the best—Chocolate Soldier, and Diana Parks. Their peony show will be the week of June 23. He will send us a report.

* * *

We again call the attention of our members to the Minneapolis show June 23-24. We hope a great many of our members will be present. The dates should be late enough for all to see their own gardens and also see many more beautiful ones in Minnesota as well as one of the most beautiful states in the country.

Many matters of importance will come before the meetings of both the members and the directors. It is probable that there will be a meeting of the directors the evening of Tuesday the 24th as the show will close at five p.m. Also, if necessary, there will be one the next morning. Our President is anxious that the directors arrange to stay over for these meetings if at all possible. So please arrange your schedule to do this.

* * *

Due to many circumstances the statements of accounts due the Society have not yet gone out. Many have already sent in their dues for this year, without a statement. We hope many of those who have not yet done so will do likewise. If all goes well, the statements should come out in April.

This Bulletin will be mailed as soon as possible. We hope to get it all in type this week-end and it will be printed as soon as we get the final O. K.

"I'D RAISE PEONIES"

Under this title there appeared in the February, 1958, issue of the Journal of Lifetime Living (Vol. 23, No. 8.) an article from the pen of R. W. Sherman, President of the Garden Club of the U. S. Department of Agriculture.

The author states that if he had two acres he would plant peonies and build a business selling the blossoms. He would want his farm situated somewhere between a line north of Richmond, Louisville and Wichita and south of one through Philadephia, Columbus, Ohio, and St. Joseph, Missouri, since within these bounds peonies bloom before Memorial Day which

is the time of greatest demand for the blooms.

He would seek advice from the local florists and growers regarding the best varieties to plant and from the soil experts of his state university as to those best suited to his conditions. He would market his blooms from a roadside stand and to customers calling at his place, at an average price of $1.-25 a dozen. He would expect his yield to be about 3,000 dozen blooms after the plants become mature, which would bring him a gross income of $3,750. As he would do the work himself, this would be almost all net as his expenses would be small outside of his own labor.

He gave among others as the place to get more information The American Peony Society, Box 1, Rapidan, Virginia.

He ends his article saying "What's more, such a farm will make my retirement pleasant and profitable, and provide a living legacy for my heirs."

The article is extremely well written and those who have not seen it should get a copy of the magazine and read it.

While we think that the results he counts on can be reached by those who pay close attention to their product and produce high quality blooms and have a good market on which to sell them, yet we doubt if many will actually get as good results, but it will be their own fault if they do not approach his figures. My own experience selling peony roots has often been close to them.

Since this article appeared this office has been flooded with inquiries for the additional information. They have come from all quarters of this country and even from one who wanted to raise them in tropical Brazil. It has required several hours time each day to answer the inquiries. Each inquirer has been advised to visit some grower in his neighborhood for the best advice. The inquiries have resulted in few sales of Handbooks or other literature as nothing further is heard from the inquiries. As we had quite a large number of the September, 1952, Bulletin which has an article by Carl Klehm on Growing Cut Flower Peonies, we have usually sent a copy to each one and also a Most Popular Peonies-1957 list.

If all inquirers go into the business no city in the country should lack for a source of peonies for Memorial Day.

Whether a success is made of their efforts or not, we hope the article will induce many who have not grown peonies before to become ardent peony fans. We may also say that a large percentage of the inquirers were women.

THE INDIANA STATE FLOWER

Mrs. Frank W. McClintock of Anderson, Indiana, has sent me a copy of the brochure gotten out by the Indiana Historical Bureau, 408 State Library and Historical Building, Indianapolis, which gives a picture of the State seal on the first page, which depicts a woodsman felling a tree, a buffalo crossing the prairie and the setting sun. It has the words "Seal of the State of Indiana, 1816" around the rim. This seal was adopted evidently by the Territory of Indiana much earlier than 1816 as it appears on papers as early as 1801. It was kept as the State seal when Indiana was admitted to the Union in 1816. It is symbolic of westward expansion.

The second page has a good picture of a branch of the State

tree, which is liriodendron tulipifera, in full bloom. We know this tree in Virginia as the poplar tree which is not correct as it is not a poplar, It is probably more generally know as the tulip tree. It grows upright and tall. Its greenish yellow flowers resemble a tulip. Its soft yellowish wood is valuable in the lumber trade and it soon falls a victim to the lumberman's axe.

On the third page is the State flower, the peony. This replaced the zinnia through the efforts of our good member Mr. L. D. Baker of Kendallville, Indiana, who is a member of the Indiana Legislature. See page 28, Bulletin No. 144, March 1957. The picture is one of Kansas, which we find in the 1957 catalog of the Brand Peony Farms, Faribault, Minnesota. As shown in the Brand catalog the color is darker and the details are better than in the brochure. We suggested an Indiana variety when asked for suggestions by the Indiana authorities, but they wanted one that would not raise trouble, so they picked this one. No name is given it in the brochure, but it was easily spotted. One more triumph for Kansas. The last page has a picture of the Indiana State Flag adopted in 1917. It has a torch in the center indicating liberty and enlightenment; the rays represent their far reaching influence. The outer circle of stars stands for the original thirteen states and the inner circle for the five states next admitted to the Union. The larger star stands for Indiana. The banner is blue with gold stars and torch. Its name was changed from banner to flag by act of the Legislature in 1955.

The law states that the State flag is regulation in addition to the American flag, with all of the military forces in the State of Indiana, and in all public functions in which the state may or shall officially appear.

The brochure is excellently gotten up. printed in blue ink on white. Size 6" by 9".

GIBBERELLINS

Miss Silvia Saunders sends us a clipping from the New York Times of February 16, 1958, which tells of some of the recent experiments with these substances by the Agricultural Experiment Station at Storrs, Connecticut. It is said that apple trees treated will bear fruit one year after germination. Exactly what this means we do not know, but from its wording it would indicate that seedling apple trees bear one year after they come up. Which to say the least seems rather unbelievable, as they usually take a number of years to do so.

It is also said that seeds and bulbs soaked in gibberellic acid start to grow promptly, even in adverse weather conditions. It is noted that this is encouraging to those gardeners who have experienced long delays in seed starting in damp, cold springs. This acid also eliminates the period of dormancy required by some seeds before germination. This applies to peach and apple seeds and also to potatoes treated which will sprout without going through their normal period of dormancy. Also some plants that have just bloomed can be brought into bloom again without cold treatment.

It states that the big aim of the scientists is to find out how the substances work. This is at present a mystery.

A much longer article has appeared in the Garden Journal of the New York Botanical Garden,

written by one of its plant pathologists, Dr. P. P. Pirone, who is a noted authority in his line. This article gives us much useful information about the gibberellins which name is applied to three forms, gibberellic acid and gibberellin A 1 and A 2. All of these are derived from the fungus gibberella fujikuroi by a costly process. When first marketed in the Spring of 1957, a pound cost about $5,000. By Fall however, this figure had come down to about $1,800. Due to the fact that only about ten parts to a million of water are used in the solution for spraying, the cost to the user is quite modest.

These gibberellins are marketed in powder form and this powder must be dissolved in water according to directions, just before using as they lose their potency in a day or two after being placed in solution in water. This is necessary for their use. They are usually applied through foliar spraying, when they are often mixed with a plant food. They are not plant foods in themselves.

A letter in Organic Gardening and Farming for March states that the writer had no beneficial effects at all, and most of the plants on which it was used were ruined. Pictures of a number accompany the letter. These results are just the opposite to those obtained by others. However it is clearly stated that some plants are stimulated to such an extent that they grow three times their normal growth, others much less, some are not affected at all and some are ruined.

We have no reports of its action on peonies. We hope some one will send us such reports this year.

NEMACIDES

A letter has been received from Mr. E. F. Wright, Jr., of Monterey, Tennessee, which asked two questions:

1. Do nemacides have any harmful effect upon the soil by destroying useful bacteria, or by altering or damaging available plant foods?

2. Are they calculated to damage the plant, and particularly the buds, when used in greater than normal concentrations?

He further writes that he has two plants of Victory that were cut from a parent plant that was heavily infested with nemas. After the blooming season last year, he gave them a heavy does of the nemacide V-13 four ounces each. Neither plant showed any change visible to the eye last year. He is awaiting the blooming season this year with interest.

He also sends a magazine clipping describing the insecticide sold under the trade name of "Systoban" which works through the plants' circulatory systems. It has tiny granules which are scattered on the ground around the plant and watered in. They are supposed to be most effective against sucking insects as aphids, thrips, leafminers, etc. Its effects last for three or four weeks. It is poisonous. We hope some of our readers who have used such substances will report.

THE NEW COLOR CHART

Several inquiries have come in about this chart. We do NOT have it for sale. It should be ordered from Dr. Donald Wyman, Secretary, American Horticultural Council, Arnold Arboretum, Jamaica Plain 30, Massachusetts. Price $5.00.

PLANTING PEONIES IN POTS

Mr. Herman Meyer of Homewood, Illinois was one of our first members to do this. He now intends to increase these plantings and have them for sale any time of the year the customer may wish them. He has had good results potting in cloverset paper pots in November. They sell well the next blooming season especially if they show buds. He now intends to try other sizes and methods.