

The BEGONIAN

Devoted to the Sheltered Gardens

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The BEGONIAN

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**A Very Happy, Prosperous and
Worthwhile 1946 to All of You
and Yours!**

Now the New Year reviving old Desires,
The thoughtful soul to solitude retires.

—Omar Khayyam—*Rubayat.*

Whosoever is delighted in solitude, is
either a wild beast or a god.

—Plato—*Protag. I.*

• With the wish of "A HAPPY NEW YEAR" for every reader of our BEGONIAN, the Editors are pleased to bring to mind that beloved Dean of begonia lovers and growers: Alfred D. Robinson. We hope it will inspire everyone to give a little more attention to the wonders of plants, and begonias in particular, but even Mr. Robinson accompanied them with other countless lovely shade-loving plants.

—The Editors.

**Re-Evoked By A New Year's
Message of Alfred D. Robinson**

By BESSIE BUXTON, Peabody, Mass.

• In a January BEGONIAN I was delighted to read the reprint of Mr. Robinson's New Year's message of a by-gone year. How much we miss his sage advice, his plant knowledge and his flashing wit! My acquaintance with him began with my purchase of a few begonias sometime late in the Twenties, and it ripened over the years as we discussed and exchanged our beloved plants. His letters, filled with descriptions of begonias, sometimes of his own seedlings developing under his watchful eye, of new ways of growing begonias or combatting their enemies, have been like a reference library. In one of these early letters he wrote: "For long distance shipping I leave

(Continued on Page 4)

Super-Rexes, Tuberous Begonias, Cabbages and Kings

By MRS. CLARENCE E. MOORE,
San Diego, Calif.

• When the San Diego branch gathered to hear R. H. Calvin, of the Alfred D. Robinson branch, tell his experiences with rex begonias they saw a collection of rexes that brought many exclamations of delight from them. For they were enormous plants with lovely large leaves in perfect condition, and in unusually small pots. One—"Cardoza Gardens"—had the largest leaves any of us had ever seen and it seemed impossible that it could develop as it had in the tiny pot that it was grown in. Mr. Calvin said not to repot until the root system completely filled the pot, and then to use just a size larger—never over-pot. Then set the plant a little lower. Do not disturb the root system any more than can be helped.

His formula for a potting soil is: four measures of leaf mold, 1/3 measure of coarse builder's sand, 1/3 measure of well rotted manure, 1/3 measure of peat moss. Mix this compost and let ripen for three months. Fertilize once every four or five weeks, using 1/4 cup of Likwid Grow or other prepared liquid fertilizer to a four-inch pot. Over-fertilizing will mean brown spots on the leaves.

Keep rooting medium just barely moist when rooting leaves, Rhizomatous ends make plants, but they will not do well the first year. Sever so that the cut is at leaf node. Do not over-water. He lets his rexes bloom all they wish for he says he likes the blossoms, but he does pick them when the rains start.

His compost pile receipt will do for vegetables and in fact for everything that grows. Vegetables, fertilized with it will be healthier and will furnish vitamins and minerals in abundance for human needs. He uses bare ground, and puts branches of clean shrubs at bottom so that the air can aerate the pile. Place a 4'x5' box over the shrubs and pile in grass clippings, clean leaves and vegetable parings. Be sure nothing infected with nematodes is put in it, or you will just contaminate everything with the pest. Watch carrot peelings very carefully for nematodes. When you have a six-inch layer, sprinkle with a small handful of agricultural lime, add two inches of cow manure, (chicken or rabbit will do, too). Wet down and add two inches of soil on top. Repeat until about three feet high. Face sides with dirt and in thirty days mix well, bringing the bottom of the mixture to the top, and then in thirty days mix again.

He said to take up tuberous begonias when

they have gone dormant and remove soil. Dust with charcoal or dusting sulphur if bruised. Take a sharp knife and remove stem, wash quite thoroughly to remove soil, put in flats and leave in the sun for one day, turn over the bulbs and sun another day, then put in a cool, dark place until time to start them again.

Last but not least, we of the San Diego branch are so happy that the invitation in '42 and '43 by Russ Eaker and then by Mrs. J. A. Hegel this year has been accepted by the American Begonia Society and all of you will be our guests this summer. The fact that Mr. Calvin is now president of the Alfred D. Robinson branch will not lessen his skill in growing super rex begonias.

ARTHUR M. NELSON HONORED AT NATIONAL BOARD MEETING

In the absence of Mr. Clarence Hall who was to be in Los Angeles to make the presentation, Mr. George Lawrence made it known that the delay was caused by the fact that it was hard to find a token that would fit his needs. A Parker pen was offered to Mr. Nelson in appreciation of his valued and fine leadership for 1944-45 as President of The American Begonia Society. Mr. Nelson was gladly surprised at the receipt of this lovely pen and thanked the Society warmly for the very nice gesture.

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ALFRED D. ROBINSON MESSAGE

(Continued from Page 2)

but little soil on the roots of the plants, because it dries and crumbles off. After wrapping the roots with wet moss, I make a tight roll, as tight as I can, and tie this just below the crown, then put on loosely another wrapper covering the whole plant." Anyone who ever received a plant from Mr. Robinson knows in what excellent condition it arrived, thanks to this method of packing.

In 1929 I sent him a plant of *Cathayana*, which he wanted very much. He wrote: "The plants came and I am breathless over *Cathayana*, which arrived in the best of shape. It is simply unbelievable! And I also want you to know that more than 50 sturdy little plants of *Socotrana* are growing bravely from the stock you sent some time ago." After discussing several other begonias, the letter ended, "Sincerely, A. D. Robinson, Oh. that *Cathayana*!"

Lamenting the confusion in begonia names, he said: "There should be a strong Begonia Society or a powerful institution to clarify this situation. I have had in mind for years the publication of a Begonia Quarterly, which would carry one to four illustrations of key types, with the idea of a book in the future, but I am quite sure that someone else will have to do it. I do not see how we shall ever get a standardized nomenclature for begonias unless we have a society strong enough to fix on names and stick to them. The real service of names, anyhow, is to enable us to identify specimens, rather than to honor individuals."

Later, discussing the important question of water, he wrote: "I have found the Government formula of one half ounce of supersaturated solution of alum to a gallon of water a life saver. It was worked out originally for raising azalea and rhododendron seedlings. I fill my tank, add the alum solution, and next day the alkaline salts are all

at the bottom where I can draw them off. Without this method, our rexes and seedlings would be very unhappy."

In July, 1931, he wrote: "Among the plants I send are two, marked German *Fruticosa* seedlings. I got the seed three years ago from Benary of Erfurt, Germany, and the resulting 40 seedlings were very unlike, except in the shiny, leathery leaf, the under color ranging from quite light green to dark plum. Some have remained small and others have grown almost into bushes. They are quite striking. The flowers are white, rather small, on long stems; on some, the calyx is dark red, making a star pattern on the back of the bloom."

The following April: "Again this year, I have found the Rex and other seed absolutely refusing to germinate until about this time, although planted Dec. 31 and kept in warm, moist heat. I am going to plant again to see if it behaves as it did two years ago when the same lot of seed took three months to germinate when planted early in January, and only three weeks when planted in late March. Not only Rex has thus behaved, but *Diadema Palmata* and a lot from Hawaii. I discussed this behavior with Liberty Bailey and he said that some plants were so strongly seasonal that in any form they reserved their activity to a definite season."

In August, 1933: "The Begonia Club met at Rosecroft last Sunday and we had a really jolly time. There was present Mr. Roy Berry, who has made an important contribution to Begonias in a cross of Rex on Dregei. The progeny are compact, bushy plants habited like Dregei, with zoning and coloring like a Rex. The variegated Vernon you describe might be our Calla, for ours in the third generation is much more vigorous in growth than the original. However, the calla characteristic is just as pronounced and *Mirabile dictu*, I have a bed of them in my lath

(Continued on Page 6)

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Adventures In Improving Begonias

By W. D. HOLLEY

University of New Hampshire, Durham, New Hampshire

PART II

In producing hybrid seed careful selection of the parent is essential. Both parents should be dwarf, well branched and free blooming and pure for the color selected. The female parent must be double flowered and produce normal flowers during the seed production period which usually does not include mid-winter. Some double flowered plants produce female flowers with deformed petals in the place of stigmas, hence they are of no value in seed production. The male parent should be a semi-double and produce its pollen well and transmit a high percentage of doubleness to its progeny. Although doubles may be more desirable, even the semi-doubles are usually more saleable than singles.

Unless some insect can be found that will cross pollinate these begonias efficiently the pollinating must be done by hand. Weights of clean seed per pod of this hybrid seed have averaged 8 to 11 milligrams. At the current price of domestically produced double petunia seed, which is comparable, each seed pod would be worth 20c to 30c. At this price the cost of hand pollination would not be prohibitive.

Female flowers on double begonias are in a lateral position, so are sometimes choked off if all the terminal double flowers are allowed to mature. The removal of one to three of the clusters of five or more double flowers as soon as they start spreading apart, will allow the female flowers to develop. It is well to leave one of the outside double flowers to each female flower, at least until the female is pollinated. If all the doubles are removed early, the female flowers often abort. To produce red hybrids both parents must be pure line red. To produce white both parents must be pure line white. Pink may be obtained by crossing a pure red and a pure white. To introduce 100 per cent dark foliage into the hybrids one of the parents must be pure for this factor. To have 100 per cent dwarf branching habit to the plant, both parents must be pure for this factor.

After studying doubleness for some time we began to study flower color and observe its inheritance in connection with doubleness. Red times white, that is providing the parents are both pure, has given us all medium pink in the F_1 generation and in the F_2 approximately one red, 14 pinks of all gradations, and one white. In one instance

where the white begonia variety Begonia subvillosa was crossed with a red variety of semperflorens the progeny, of course, were all medium pink but in the F_2 only one plant in 64 was white. There has been a great deal of difficulty in classifying the various colors because some of the whites are actually not white because they carry some pink in their make-up. This color we have designated as trace pink and many of you are familiar with it as being the color of Woodriff's variety Snow Blush. An absolutely pure white will give all progeny white whereas a trace pink will produce almost 50-50 white and trace pink. Some of the trace pinks even throw a few medium pink plants.

Although quite a lot of work will need to be done before color inheritance in begonia can definitely be mapped out, this much we do know. White is a recessive color and apparently either two or three factors must be recessive before a plant can have colorless flowers. A pure red crossed with a pure white will give a medium pink uniform progeny. Reds appear in much smaller numbers than pinks and usually red selections come true for red color. There are two distinctly different reds, one being on the anthocyanin side or shade and the other having a distinct orange or orange scarlet hue. Whether or not these two different reds behave the same, I am not prepared to say at present.

(End of part two)

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ALFRED D. ROBINSON MESSAGE

(Continued from Page 4)

house, a hundred plants, flourishing like the most wicked. As to that wilting, I believe we do overwater, but good results have been obtained by repotting with soil in which a sprinkling of Bordeaux mixture dry powder has been mixed. I have Cathcart caged under a cake glass and Cathayana in a big lamp chimney with a pane of glass on top. This latter is Mrs. R.'s panacea for all plant ills, and really, Cathy has made some progress since it went into her Sanitarium."

Early in 1934 the postman brought me a single multigraphed sheet which chronicled a meeting of the California Begonia Society at the home of Mr. Clayton Kelly, Long Beach. As I had not heard of such an organization, I asked Mr. Robinson about it in my next letter. He wrote enthusiastically, saying, "Make no mistake, that group is going places!" Soon after, I became a member of the Society, and I value highly my complete file of its monthly publication.

In June, 1934, the American Begonia Society, successor to the California Begonia Society, held a meeting at Rosecroft. "It is a very live organization," he wrote, "and I predict it will go far. This has been the best year in the lath house, in my experience. However, certain things are now slumping a bit, chiefly the young stuff, from the effect of chlorine in the city water. Chemists may say what they like, but this is sheer poison to some plants, and it cannot be good for humans."

The following February he wrote: "I have just made an interesting trial by planting Rex leaf cuttings in straight sawdust, and as many of them rooted and grew as in leaf mold. The sawdust was fresh, mostly cypress, redwood and pine. It has the great advantage of having no worms in it. Now we have a batch of fibrous cuttings in the fine material taken from a charcoal pit. It looks and smells like soot. I am trying this in pans for seed, as this season it has seemed impossible to get rid of the small transparent worms that stir up the surface and destroy small seedlings. These, we suppose, hatch out of the leafmold. This charcoal refuse may be an answer to many of our fervent prayers."

(To be continued)

NOTE: There is still time for those of you who keep your tuberous begonias well to tell the Editor all about it for the others who want to know how to improve the average.

Keep count of your tubers this season, take notes, let us hear from you in the Spring—if not now.—*The Editor.*

January, A Busy Month For Fuchsiarians

By OLIVER KEHRLEIN

Author of "Fuchsia Ballerina of the Garden," which will appear soon.

• While fuchsias may be resting this month; fuchsiarians can not loaf even though they are confined indoors. Pots have to be cleaned. Dirt and scum can be removed by soaking in a solution of one tablespoonful of Chlorox or ammonia to the gallon of water, followed by vigorous scrubbing with a stiff brush, preferably wire.

For those who prefer colored pots, the paint can be made to stick by first applying a coating of aluminum. Only hanging pots should have the bottoms painted. On quiet evenings, repaint and letter all old labels and make up new ones.

Potting and bedding mixtures can be gathered on week-end trips and thoroughly mixed and screened. Coarse screening should be set aside for the outdoor beds or placed on the compost pile. For pots, the best mixture is: 1 pt. loam, 1 pt. sand, 2 pts. leaf mold, 2 pts. manure. In the beds use equal parts of loam, sand, leaf mold and manure. In each wheel-barrowful of mixture work in

a cupful of commercial fertilizer, preferably a hydroponic type like Plant Chem.

Cuttings of favorite varieties can now be rooted in sand. Take a 6-inch branchlet with a heel (that little section where it joins the main stem); remove the lower leaves and tip; dip in a hormone solution or a fertilizer containing a root-stimulating hormone; insert gently in the sand; keep bed damp and in a cool, dark place for 4 days, then bring it out into the light; place glass over it to maintain moisture. As soon as the roots form and new growth starts, give them plenty of air and protect from cold and draughts.

Dormant potted plants can now be re-potted. Knock plant from pot, remove dirt from roots with table fork, clean off in tub of water. Place drainage material in pot, cover with 2 inches of rich mixture; stand plant in pot and fill in with new mixture; puddle the soil to eliminate air bubbles. Replace label and set in a protected place until established.

From Theodosia Burr Shepard Branch

By IRENE NANCE

• "Mirandy," of radio fame, delighted the capacity audience that turned out to hear her speak at the November meeting. The dainty, winsome little lady, in gingham country costume, immediately put everyone in a happy mood by her own cheerful countenance and with her droll, folksy stories caused hilarious laughter.

The two hundred members and guests were very receptive of her informative talk on gardening which was interspersed with amusing anecdotes. Mirandy not only spoke advisedly on how, when and where to plant trees, shrubs, vines and flowers for successful growing but stressed that selection be made from the standpoint of appropriateness of the plant for its characteristics, size and color for the place it is to occupy. She also encouraged the choice of more unusual plants on which to spend our time and efforts: thereby creating more interest for the spectator as well as the gardener.

The audience fairly radiated responsiveness at Mirandy's philosophy of gardening benefitting the mind and soul as well as the body of the gardener. Perhaps many present had reason to accept her statement that "A sick heart is often healed in a garden."

North Long Beach Branch

The North Long Beach Branch enjoyed Mr. Harold Hart's talk on "Garden Gadgets" in November, 1945, at which meeting the new officers were elected as follows:

President, Mrs. Jean Stocklasa, 5505 Olive Ave., Long Beach, Calif.; Vice-President, Mr. E. Petri; Secretary, Mrs. Mary Coon, 5511 Olive Ave., Long Beach, Calif.; Treasurer, Mr. Levi Wilkerson; National Representative, Mrs. Mary Crawford.

These officers were installed at the December meeting, Dec. 10th, when the Branch held a pot-luck dinner and gift-exchange.

Whittier Branch:

The Whittier Begonia Society joined with the *Whittier Fuchsia Branch* on December 11th, 1945, with a gift exchange and musicale. We hope their guest from South Africa will take back some notes of importance on begonias and other shade plants . . . gained from the round-table held on these plants.

San Gabriel Branch

The San Gabriel Branch put on a special Country Store Night in September, 1945, with Capt. Dere as Grand Auctioneer. The proceeds will be used to pay the expenses of the Birthday Dinner in January. Dr. Lauder donated a large number of plants. In November, Mr. Fred O. Record of the California Spray Company spoke on Pest Control and Application of DDT.

B. UNDINE

By ALICE M. CLARK, San Diego, Calif.

• At long last I can present a local begonia that is easy to write about. B. Undine, a Rosecroft seedling, of Nitida, var. Odorata Alba, was listed in the Robinson catalog for 1928. The name reflects the whimsical humor of A. D. R. The wave in the leaf probably suggested the latin, "unda," so he went a step further and christened it "Undine," for the female water sprites fabled to be endowed with human souls if they intermarried with mortals. At least Mr. Robinson gave the poor dears a chance for expression in the botanical world!

The few stalks sketched must be multiplied many times in the mind's eye to illustrate the bushiness of the plant itself. It sends up more than twenty-five slender stems, about two feet high, straight from the ground. They are a fleshy, white-flecked green, reddish at the joints, with long internodes at the base that close up to half an inch at the tips. The alternate leaves, on short light green petioles that grow longer with age, toe out flat like duck's feet, giving a horizontal appearance to the plant. The veins that fan out from the center further accent this effect.

The leaf is almost as wide as it is long, except for a short point, which makes it different from its parent, which has the kidney-shaped pointed oval. The color is similar; a light shining green on top, duller below. The edges are irregularly dentate, and the surface, especially of the young-leaves, is puckered and contorted. On my plant the older leaves have yellow spots, due perhaps to the cold.

The flower cymes are borne at the tip of

the leaf and axils, which usually show very young buds, without any sheaths, a flowering cluster and one on the decline, all at once. The slender peduncle of dark red rarely carries more than three blossoms in full bloom at a time, so the results are not spectacular. However, it is a very consistent bloomer, like its parent, and has an even sweeter sacher scent.

The bud groups have a tight formation and a deep rose tint, reminiscent of apple blossoms. The male flower, about one inch across, shows two pale pink, elongated oval petals and two narrow ones waved like the feathered edge of a propeller. The female bloom has five petals, three a trifle larger than the other two, all much twisted and heavily splashed with rose. The ovary itself an inch over is much larger in proportion to the flowers. One wing is bigger than the others and they all have a blush of rose near the edge. The staminate flowers fall soon, while a cluster of three female bloom hold to full size. But there are no seed pods on my plant.

Undine is a splendid begonia for a hanging basket, as it makes a full display all around. For a nice lasting border, all of this family would be charming planted together. Use Odorata Alba for a fine tall background, where there is plenty of light to keep it blooming. Alternate Undine with Odorata Rosea for the middle and plant that refined, much-beflowered Nitida, itself, for a bushy foreground. If you will make a resolution to use more begonias for landscape effects, in 1946, it will assure both you and the garden of a Happy New Year.

ROUND ROBIN SUGGESTION:

By FRANCES DOWNING

305 N. Mason, Bowie, Texas

• The suggestion has been offered to me by Mrs. Alice M. Clark of San Diego, California, that a Round Robin be organized of begonia enthusiasts in California, maybe even dividing the sections of climatic difference for the sake of gaining more direct knowledge. Mrs. Clark herself might direct the one for Southern California, other directors are invited for Bay District of San Francisco, California, and Northern Coast section, also for Seattle, Washington, and Portland, Oregon.

Each would-be member should therefore state to which district he or she belongs so that each may be assigned the right group. Maybe Miss Charlotte Hoak of Pasadena might be inveigled into taking the directorship of the California Robins.

CORRECTION

RE-B. Di-annà—Really DI-ERNA.

We hear from Mrs. Alice Clark as follows: "Mrs. Robinson was down to see me and agreed with what I feared—that Di-anna, of November BEGONIAN is really DI-ERNA. I had called her by long distance before I sent it in for publication and had also sent her the sketch, because I had a hunch that it was wrong, but it took a look at the two plants to point out the difference. So, will you please ask our BEGONIAN readers to make the correction in their magazines—NOW?" If the correction is made right away, it will register the point in your mind more definitely, and relieve us of the responsibility of the mistake in identity. It is important to know plants by their right names.—*The Editor.*



Alison Park 18

B. UNDINE

JANUARY 1946

By BESSIE BUXTON, Peabody, Mass.

• "Now is the winter of our discontent," might well be the begonias speaking. The snow lies deep over the countryside, the icy wind howls around the house, and as soon as the pale sun drops low in the west, the icy fingers of Jack Frost draw lacy fern patterns on our windows. If the glass does not drop below 20°, a newspaper behind the window-sill plants will be protection enough, but if it does, take the plants from the sills and put them on a table or desk-top well above the floors. Do not replace them until the sun reaches the window next morning. Water with warm water these bitter days, and give them all the sun possible. Do not expect much of them in midwinter. If you can keep them green and healthy through this month, next month will see a start towards spring growth.

OBITUARY

• Mrs. Albert H. Gere, of Merion, Pa., begonia enthusiast, died Nov. 30, 1945, after a long illness. Mrs. Gere was one of the founders of the Philobegonia Branch of A.B.S. and its first Secretary-Treasurer. She was not satisfied with growing a varied collection of fine plants, but she used her artistic talents and great industry to help Mrs. Helen K. Krauss in the work on nomenclature. In the course of this research, Mrs. Gere, with the co-operation of her husband, a skillful amateur photographer, assembled, not only a fine collection of photographs and slides of specimen begonias, but also a unique library of reproductions of source material on the genus, until now scattered in botanical and horticultural publications. Our heartfelt sympathy is extended to Mr. Albert H. Gere.

IF YOUR DUES ARE DELINQUENT

Your BEGONIAN will be missing—unless Mrs. Mary Ellen Clark receives your check or money order by one month at latest after the dues are in order. The postal regulations allow only one "grace" copy, and our by-laws were amended accordingly.

Please send your dues directly if preferred, but it is better to send them through your local treasurer if time allows of the delay. If time presses, then be sure to let your treasurer know when your dues are sent to Mrs. Clark.

We like to conserve effort and resources by not having to spend funds unnecessarily as we have to do when a month's "drop" has to be made.

We shall appreciate your cooperation. A HAPPY NEW YEAR TO YOU.

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Question: Most begonia growers go to great trouble to keep out earthworms from pots wherein begonias are growing, believing that they are quite injurious to the roots and well being of the plant. What foundation is there for the belief? Personally, I save every earthworm I can find and thus far have not found them harmful in pots, but then I am prejudiced. I even feel sorry for the worm that gets trapped in a pot. Do they have to turn to living on the roots for lack of decaying humus? M. W.

Answer from Editor "Organic Gardening: Regarding the question of earthworms in pots, the originator of the hybrid soilution earthworm which is now bred in large quantities, got his experience from raising plants in pots with and without the use of earthworms. Two things must be watched where earthworms are placed in pots: First—there must not be

too many earthworms and secondly, there should be some organic matter in the soil of the pots for the earthworms to work on. The experiment should be carried out personally with control pots to appreciate the results . . ." We should like to hear from experimenters.—Ed.

QUESTIONS ANSWERED

By HELEN R. BAILEY, San Diego, Calif.

Q. Can you tell me where in this part of the world I can buy Begonias?

From Mrs. M. M. H., Cooperstown, N. Y.

A. Note the advertisements in THE BEGONIAN of the Greentree Flower Gardens of Philadelphia, Penn., of Philip M. Post of Paxton, Mass., and of Mrs. B. L. Shippy of Lockport, N. Y. I think that all of them take care of mail-order business.

Q. I would like some information on finding the different species of Begonias such as Maple Leaf Begonia, Steel Begonia, and others not found in the usual seed catalogues?

From Mrs. C. W. B., Miami, Texas.

A. I am up a stump when asked about the Maple Leaf Begonia. Mrs. Buxton's "Begonias and How to Grow Them" gives two that are called that. Weltoniensis and Macbethi. And I gather from her illustration that olbia, Parvifolia, and richardsiana, all might be called that. (Olbia is the one that means Maple Leaf to me.)

None of us around San Diego have ever heard of a Begonia known as the Steel Begonia. Could you be thinking of Abel Carriere, which has a silvery leaf?

All of the begonias were obtainable by mail under those names before the war and can be bought around here locally even now. If you cannot get them in your locality, suppose you write to some of our advertisers in THE BEGONIAN.

Question: Why do the leaves of my Rexes dry on the edges or in spots, then continue to dry until the leaves drop? I water every morning and feed once a month. The soil never dries. They are protected with muslin all around the lathhouse and on the top. Ventilation is not shut out.—J. S. R.

Answer: It is probably due to the drying of the epidermis. The upper part of the plant might suffer especially because of the lack of humidity in the lathhouse. Suggest spraying all over all leaf surfaces during hot, dry weather, even when the sun is not shining, because the big leaves need water faster than the roots can supply it. Henry Le Plat.

Answers to Round Robin Questions

MRS. RUSSEL H. BAILEY, Ch.

San Diego, Calif.

We are glad to present a different point of view to our Questions and Answers column when possible. The following were graciously sent us by Mr. H. M. Butterfield, Specialist in Agricultural Extension, University of California, Berkeley, California.

● *Stem decay in tuberous begonias* was discussed in an article by John T. Middleton, published in 1942 by the Torrey Botanical Club 69(2): 92-99. Very likely this same disease will affect begonias outside of the tuberous rooted group, and we may assume that more than one kind of fungus is involved. The ones that the author discussed are *Pithyium intermediate* and *P. ultimum*. The disease is best controlled by using sterile soil, pots, and flats, by avoiding excessive moisture, and by spraying with mild copper fungicides. The same fungus has caused a root rot on some of the red-flowered varieties of *Begonia semperflorens*.

During the Exposition on Treasure Island we had some trouble late in the season on stems of the tuberous begonias where *Botrytis* gained an entrance to injured places at the base of the leaves or in cracks on the stems. No doubt this was due in part to the rather cool, moist climate and perhaps the plant was on the decline so that it was less able to resist such infections. A little more heat and a little better ventilation may help prevent the accumulation of moisture and the start of infection.

Your second question, asking why *begonia cuttings* taken late in the fall usually decay may be closely associated with the last statement I made. It is difficult to maintain a satisfactory temperature and avoid excessive moisture in the fall. Oftentimes the cuttings taken late in the season are not as strong as those taken earlier. This difficulty is by no means limited to begonias. Growers of succulent plants are well aware that cuttings of *Echeverias* and similar plants will take a very long time to root in the late fall, whereas the same cuttings give very little difficulty during warm summer months.

The tiny white worms working in the soil around begonias may attack the small roots and very young seedlings. We would need to identify these worms before making a positive statement, but I suspect that certain flies have laid their eggs and these have hatched out into the small worms you mention. Greenhouse operators have considerable trouble with maggots of a black fly. This in-

sect often lays its eggs where blood meal and similar organic fertilizers have been applied. Applications of nicotine sulfate sprays to the soil have helped, and I understand that the new DDT preparations are proving very effective in killing some of these soil insects.

Your question of "Why can't I grow begonias like those my Grandmother grew?" makes me think of the experience of Mrs. Theodosia B. Shepherd of Ventura many years ago. You will probably remember that she developed some of our begonias which we still grow, such as *Marjory Daw*. She had some of the climbing begonias as high as 15 feet and seemed to get along for many years. Finally she had a lot of trouble with these stem rots or root rots which you mentioned. I have seen similar difficulties in commercial greenhouses where the leaf nematode was introduced in some way and spread rapidly.

Spotted wilt is a virus disease that was apparently not serious in the days of our grandmothers. I do not credit these early growers with any superior knowledge or any superior methods. Their success was likely associated very closely with the use of virgin soil, isolation from other growers, and relatively healthy stock to start with.

The more people we have growing a plant and the longer they grow plants, the more trouble they are likely to experience. I have seen this happen so many times in commercial greenhouses that I am not surprised that the owner finally becomes a little careless and fails to practice what we call good greenhouse or garden sanitation. No doubt part of the trouble comes from introducing diseased plants from the outside. This is my own opinion regarding this matter, but it seems to be based upon careful observation.

Handsome plants from the florist do not just happen. These florists have usually been in business for 10 to 20 years or more and have learned how to regulate the temperature, ventilation, and know how to make up good potting mixtures. They have also learned how to water properly and use fertilizers judiciously.

A person may go to one of the stores that handle these plants grown in a greenhouse under favorable conditions, then take them home to all kinds of unfavorable conditions. The temperature may be radically different

(Continued on Page 12)

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BOB ANDERSON

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100 Potted Plants for Servicemen Goal of La Jolla Begonia Society

By JULIA T. M'GARVEY

• Mrs. Clayton Calloway, of the Eva Kenworthy Branch, is shown in her lathhouse in the throes of transplanting begonias into bigger pots for the soldiers . . . however, Mrs. Calloway is driving a smiling lesson home to beginners not to go digging a plant out of a pot with a trowel as she seems to be doing . . . as that is a sure way to hurt the roots. See how nicely settled the other plants are.

Mr. Robert Casomajor, President of the So. Calif. Horticultural Institute, and Chairman of the Horticultural Research Commission of the So. Calif. Camellia Society, spoke for this Branch on Dec. 17th, showing pictures of camellias in color.

Others on the Program were: Col. Merle S. Harmon, of Camp Mitchell; Mrs. Albert Jones, vice chairman of the Red Cross camp and hospital corps; Miss Ethel McAfee, Red Cross field director at Camp Mitchell; Mrs. Albert Jones and Mrs. Ward Waddell of the Red Cross.

Arred C. Hottes was master of ceremonies.
—From San Diego Union, Sunday, Dec. 9,
1945. (Photo by E. K. Gray Branch)

QUESTIONS AND ANSWERS

(Continued from Page 11)

from that to which the plants have been accustomed. Most homes are not ventilated like a greenhouse and do not have the same humidity in the air. Neither do they have the same lighting conditions. Many people fail to realize that as we change the temperature and air humidity we must also change the watering to avoid difficulty. If we water plants generously while they are not making satisfactory growth due to insufficient heat, we will likely get into trouble no matter what tender plant we are growing. These are a few of the difficulties that account for the plants "pining away" after they are taken home.

I have no report regarding Abel Carriere being subject to decay. Several kinds of begonias are subject to the diseases first mentioned.

Only a very few people are sufficiently familiar with the requirements of Rex begonias to give a satisfactory opinion regarding: "The cause of leaves decaying when they are placed in damp sand for propagation?" I would suspect that the temperature is not right and that perhaps the rooting medium is not satisfactory. We have to be very careful about not overwatering such cuttings at the start and must use a rooting

(Continued on Page 16)



NEW SEED FUND APPOINTMENT

By HAROLD W. HART

President of the American Begonia Society

It is a pleasure to announce the appointment of Mrs. E. Carrell, 214 North Yale Street, Fullerton, Calif., as the new seed fund administrator for the American Begonia Society. She is well qualified to carry on this work and I am sure that she will be glad to co-operate with anyone interested in seeds.

Mrs. Carrell has been a member of the American Begonia Society since 1934 and has been instrumental in starting one or two Branches. The following article offers her introductory remarks and we will be hearing more from her in future BEGONIANS. You will note a change in policy regarding the addition to begonias of other shade plant seeds. This will be welcome news to many of our members and should in no way interfere with our hobby of raising begonias but should be a stimulant to improve our gardens, lath and greenhouse with color and balance. I think we, as a society, should definitely cater to begonias and feature them strongly at our shows but we should do everything we can to broaden our interest in all types of shade plants.

You will also note that due to higher costs of seed, that the one dollar retainer for the seed fund pool will be two dollars. Please make out any checks or money orders to the American Begonia Society if you wish to participate, and mail them direct to Mrs. Carrell at the above address.

I wish to personally thank our retiring seed fund administrator, Clarissa Harris, for handling this fund during the past several years and for her efforts in securing our new administrator. Mrs. Harris has done a good job but has been considerably handicapped during the past war years as it has been impossible to make contacts in various parts of the world.

Start planning for the Begonia Show at San Diego Convention.

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TO THE SEED FUND FANS

By E. CARRELL, Fullerton, Calif.

Ahoy, Armchair Explorers!

A New Year is here, and to us it means a new adventure in growing rare and unknown plants from the merest specks of seeds. The anticipation of watching for the flowers to open on that new plant we grew is a great joy to us. Some of us with heated greenhouses can't resist starting seed as soon as we get them, but the best results come from the spring plantings.

With the mails now free at last to most parts of the world, we can try our luck again with rare seeds from the far corners of the earth. Already letters have been mailed to England, Scotland, Holland, Belgium, Mexico, Central and South America and many tropical islands, replies are slow in getting back, but some places have been heard from. Seeds have already been ordered from Holland, also England. Last week came a card from a collector in Mexico stating he was starting out now to gather seeds for us, he didn't ask for money in advance, most of them do. A collector in Costa Rica will gather seed if we place an order with him for \$25 worth, he wants \$1 per packet for seed gathered in the wilderness. Shoe leather and food is high, labor scarce, he claims, and so we find everywhere that seed will cost us more this year than ever before.

Aside from the ever-fascinating begonia the writer collects members of the Gesneriads and finds them most interesting. Many grow choice varieties of primroses and impatiens, etc., all shade-loving plants. It is our intention this year to send out not only begonia seed but also any choice shade-loving kinds we are able to obtain. We hope this meets with the approval of you Fans, we welcome your suggestions.

The membership fee to the Seed Fund will be \$2 this year and you will have a share in whatever we are able to obtain. It will be small portions to be sure, but still enough to give you a great many plants of each kind. We cannot promise any certain number of packets, nor can we guarantee that the seed will germinate, but if you feel the urge to gamble with us, then send your \$2 and we will do our best to send you something exciting in the seed line.

Anyone having contacts with foreign countries where we might obtain seed is invited to write us giving particulars as we are always very glad to find new sources of seed supply.

Let's hear from you right away. A new skipper at the wheel this year, we'll try to stop at some new ports. Exciting adventures ahead. YE OLDE SEED FUND SKIPPER.

The Soil Colloids as Related to Soil Fertility

By W. C. DRUMMOND, Hollywood, Calif.

PART III

Kinds of Colloids and Their Functions

Two types of colloidal systems are recognized, depending on whether they are liquid or solid. The organic liquid colloids belong to the group called EMULSOIDS. They are often referred to as the HYDROLYLIC SOLS; while the inorganic solid groups are called SUSPENSIDS or HYDROPHOBIC SOLS. The crystalline inner part of the mineral colloidal lattice, as it is described, is called a MICELLE, a NUCLEOLUS or ACIDOID. The exact composition of this micelle varies. In the temperate zone soils inorganic colloids are mostly ALUMINO-SILICATES, yet they are known to commonly contain iron hydrates and oxides, and other ions (elements). But the part of the soil colloid which interests us most are the attached CATIONS (positive elements or ions). This attraction, retention and release, as explained in the October BEGONIAN, 1945, is called Base or Ionic exchange. These cations are the basic ions and the order of their retention to the micelle are: $H+CA++MG+K+NH_4+NA+$ (the plus signs signify basic, i. e., positive ions or elements and the number of the plus signs the number of their valances. The hydrogen ion is held the tightest the sodium the least. Hydrogen can be displaced by calcium or other ions, but this displacement is governed in part at least by the soil reaction, the pH.

Sometimes in applying potassium and nitrogen, as ammonia, we do not get the expected results. Some authorities explain this by telling us the soil colloids hold these basic elements so tight, the plant is unable to release them. The procedure then is either to apply more of the same fertilizer, or apply calcium as gypsum for the west or hydrated lime in the eastern United States. The calcium should release these fertilizers. Also it has long been known that a plentiful supply of a given basic element causes its easy release when attached to colloids. In other words the more of the basic elements in the soil the easier they are released from the soil colloid.

In neutral to slightly alkaline soils, calcium ions are the easiest to replace; in acid soil, the H ion; and in strictly alkaline soil, the sodium. It is evident then that the more acid our soil becomes, the less nutrient elements are stored in the colloidal clay, because the H ions have replaced the other ions. Our soils in the west are rich in Ca, K, Fe and usually plenty of Mg. While in the eastern

United States, with their acid soils, there is a deficiency of calcium, magnesium, potassium and sodium. The ability of the plant roots in their growth to release calcium was explained under base exchange. The ability of the roots to release bases from the colloids was first demonstrated by Jenny & Cowan in 1933.

Organic Colloids

The chemical nature of the organic colloid micelle is not too well known. They are the products of organic matter added to the soil, and while present in a small percentage of the total colloids, normally about 5% in the east and mid-west, in the west the percentage is much lower. They exercise a power all out of proportion to their number, in comparison with silica clay colloids. The ratio of ionic (base) exchange of the organic colloid is approximately between 20 and 30 times as much as for the clay or inorganic colloids (see page 68, Soils and Fertilizers, Lyon and Buckman; MacMillan Co., 1943). And remember base exchange is the real test of a soil's capacity to grow plants. It means the difference between a poor soil and a potentially rich soil. The colloid is a store house, as it were, in the soil for the plant nutrients.

The Colloids as a Store House of Nutrients

It is quite evident now that when we apply a soluble fertilizer to the soil that the soil colloids readily attract certain basic elements of the fertilizer. In so doing some of the cations attached to the micelle of the colloid will be released. Not all the cations surrounding the micelle are attached with equal firmness, those nearest to the micelle are held the tightest, and as already stated the release of the different cations depends on the soil reaction. We can now understand how we can fill our storehouse of the soil with basic elements for future plant nourishment. Most of our western soils were originally well supplied with basic elements, and sometimes, and in some places, as time went on, the very desirable calcium and magnesium was replaced by too much sodium from irrigation water causing alkalinity of the soil.

Where sodium has replaced the calcium and magnesium in the colloidal complex, the sodium cannot be leached from the soil by irrigation until first being displaced from the micelle of the colloid. This soda can be released, and made quite soluble so that leaching of the soil with water carries it away.

(Continued on Page 18)

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QUESTIONS AND ANSWERS

(Continued from Page 12)

medium that is well-drained. The bottom temperature should also be carefully regulated according to the needs of the variety. As already suggested above, we may find that the leaves should be taken during the warmer part of the growing season and after the individual leaves have reached the proper stage of maturity.

Mr. James Budd, in charge of our greenhouses, has repeatedly rooted these Rex begonia leaves during the summer months, using the V-shaped cutting which consists of a segment of the leaf down to the petiole, with strong veins forming the margin of the segment. He seems to have better success with this type of cutting than he does with some of the whole leaves, as often mentioned in reference books.

I think that if people will give more attention to the time of the year and to the rooting conditions mentioned, there will be less trouble about the leaves decaying. The rooting medium should be sterilized if harmful fungi have been introduced in some way.

East Bay Branch

The East Bay Branch netted \$20.00 in the plant sale held at the October meeting at Mrs. I. D. Newcomb, of Richmond, Calif. At the December meeting Christmas party at the home of Mr. and Mrs. C. F. Jensen, the forthcoming Oakland Spring Flower Show plans were discussed. The theme will be "Scenes From the Mother Lode Country." Special effort is to be expended on the accommodation of guests from other branches when they go to this show. The new meeting place is the Council Chambers of the Berkeley City Hall on the 4th Tuesday of every month at 8 p.m.

Bellflower Branch

The Bellflower Branch will meet on January 8th, the *second Tuesday of January*, instead of the first, at the Masonic Hall at 6 p.m. for a Supper Meeting. At the November meeting, the treasurer, Mrs. Thelma Rock, spoke on "Epiphyllums," giving a wealth of information on their culture and propagation.

The subject of DDT was taken in hand for discussion by "Chet" C. V. Barrett of the Ventura County Agricultural Dept., at Santa Paula, Calif., before the *Theodosia Burr Shepherd Branch*.

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CONDENSED MINUTES NATIONAL BOARD, A.B.S.

Meeting held November 26th, 1945, in the
Los Angeles Public Library

Meeting called to order at 7:30 with President Hart in the chair. Directors present: President Hart, Treasurer Hawkins, President-Elect Lawrence, Director Mrs. McRae, Past-President Nelson, Editor Mrs. Wilkes, Membership Fees Chairman Mrs. Clark, Corresponding Secretary Mrs. Hartwell.

Introduction of guests and Representative Directors.

Treasurer stated he would prepare a tentative budget as soon as he received estimated requirements from the various heads.

Reports of Editor, Treasurer, and Membership Fees Chairman read, approved as read and ordered filed as part of the minutes.

Bills read, OK'd and ordered paid.

Minutes of October meeting read and approved.

DISCUSSIONS

Mrs. Clark stated her supply of Tuberous Begonia Bulletins was practically exhausted and it was the consensus of opinion that the Editor order a 2,000 issue of reprint of the present bulletin with a preface to be written by Mr. Lawrence, which he agreed to write. And to have the matter attended to as promptly as possible.

Inasmuch as the December meeting of the Board falls on Dec. 24th, Mr. Lawrence moved "That we eliminate the December meeting, and the Treasurer be authorized to pay the normal bills—the regular monthly bills. Second, Mrs. McRae. CARRIED. President stated that should something of importance come up, a special meeting could be called. Otherwise the next regular meeting will be the fourth Monday in January, 1946.

Secretary read a letter from Mrs. Clarisse M. Carlton, Sec.-Treas., San Diego Branch, relative to having the 1946 annual meeting (which will be held in San Diego) on August 31st, which just precedes the holiday over Labor Day. After discussion it was the feeling of the Board that the August 31st date would be agreeable, if they so prefer, or if they would like to have it on Sunday, Sept. 1st, that date would be agreeable also.

Matters discussed, but no action taken.

Financing of the Annual Meetings and Flower Shows.

Whether or not the branches should continue sending in their monthly contributions toward the expenses of the Robinson Memorial. Watch your BEGONIAN for statement from the President regarding this matter.

Tribute paid to Mr. Hixon for the fine work he is doing with the Memorial plants which he is housing at his place at the present time. He is making cuttings and starting new plants. Mr. Hixon also stated he had on hand some 30 or 40 of the mature plants which could be disposed of to make room for the new ones as they were potted up. Treasurer Hawkins moved "That we authorize Mr. Hixon to sell these large begonias to any of the Branches who come to his place on the basis that one-third of the monies derived from the sales be kept by the branch, and two-thirds to go to the Robinson Memorial Fund—branches to purchase them for their plant sales. Mrs. McRae seconds. CARRIED.

Editor instructed to publish a list of the newly elected Branch Presidents and their addresses in the February issue of the BEGONIAN. Branch Secretaries asked to please send in the information.

Past President Nelson was called to the floor and presented with a Parker 51 pen as a slight token of appreciation for the work he had done for the Society during his term as President. Mr. Nelson responded, warmly thanking the members and the Board for the support they have given him all through his term and assured them he highly prized the pen and the thought back of the gift.

Mrs. Dewar announced the Glendale Branch's forthcoming Christmas dinner and birthday party and invited all interested to make their reservations early; and promised a good dinner and entertainment.

Mr. Bailey, for the Pasadena Branch, announced their Branch dinner—a pot luck dinner to be held December 12th and invited all to come and join in.

No further business, meeting adjourned to meet again the 4th Monday in January, 1946.

Respectfully submitted,
Gonda Hartwell, Corres. Sec.

San Francisco Branch Officers

The most enthusiastic and well-attended Christmas party was held Dec. 5th, under the chairmanship of Mrs. Roth. The tables were gaily decorated by Theresa Ferrero.

At the November meeting the new officers were installed: Mr. George T. Heskith, Pres.; Mrs. H. W. Macdonald, Vice-Pres.; Mrs. Walter Ashe, Sec., and Mrs. Ellen O'Brien, Treas.

The San Francisco Branch expects to increase its activities in the near future. For that purpose the newly elected president appointed several committees as follows: Publicity: Mr. M. Butler, chairman; Mr. T. Paskensen, Mrs. Ellen O'Brien, Mr. I. Gershens. Show: Theresa Ferrero, chairman; Mr. and Mrs. McMills, Mr. and Mrs. Greer, Mr. and Mrs. Werle, Mrs. Edwards, Mrs. Roth and Mr. Taylor. Entertainment: Mr. Boissier, chairman; Mrs. Bass, Mrs. Lacour, Mr. Amendola, Mrs. Brown, Mrs. Allyn. Refreshments: Mrs. Sauer, chairman; Mrs. Paskensen, Mrs. Shepherd, Mrs. Thompson, Mrs. Adams, Mrs. Taylor and Mrs. Butler.

The meeting will be held at a new address: 1641 Taraval Street, in the American Legion Hall.

Pasadena Branch Officers

President, Mrs. G. R. Makepeace, 414 Glen Oaks Drive, Pasadena, California.

President-Elect, Mr. Frank E. Clark, 2168 Cooley Place, Altadena, California.

Secretary-Treasurer: Mr. Lester Harrell, 668 Bellefontaine, Pasadena, California.

Representative to the National Board, Mr. J. W. Bailey, 803 Woodbury Road, Altadena, California.

Representative to the Robinson Memorial, Miss Charlotte M. Hoak, 1125 Stratford Ave., South Pasadena, California.

OBITUARY

The New England Branch of the A.B.S. reports with deep regret the death of their former Secretary, Elizabeth H. Skinner (Mrs. Benjamin W. Skinner), at Lynnfield Center, Mass., on November 11th, 1945. Keenly interested in our favorite plant, she grew beautiful specimens and had a thorough knowledge of them. Her loss will be deeply mourned by her fellow members.

● GOOD NEWS: Mrs. Bessie Buxton's new book is off the press. That is all we know yet, but it means we shall have it in hand shortly, so get your orders ready for your Branch Secretary or Treasurer or your Book Store or our own Librarian—that you may enjoy again, the tale of BEGONIAS, by one of our foremost pioneers in the culture of this group of plants.

SAN DIEGO CONVENTION TENTATIVE DATE

A letter from San Diego Branch was read at the last National Board Meeting asking that the Labor Holiday week-end be considered as the best time to meet for the Annual Convention and possibly designate August 31st as the date of the business meeting. In return, the Board left the choice of Saturday, August 31st, or Sunday, September 1st, to be settled by San Diego Committees.

PLANT SALES FOR CONVENTION

The Branches desirous of holding plant sales to build up the Convention Fund—in this case—to be held in San Diego, might like to consider the suggestion that if the plant sales are held early in the year it will facilitate the Convention Committee in making plans. If they know what funds are available they are naturally able to make

easier arrangements. The San Diego Branch already has started a fund.

Soil Colloids as Related to Soil Fertility

(Continued from Page 15)

This can best be done by first applying land plaster (calcium sulphate) to the soil. Do not use quick lime (calcium oxide) or hydrated lime (slacked lime) as these help to make the soil more alkaline. When we apply land plaster, the calcium is traded to the soil colloid for the sodium of the colloid, the sodium unites with the sulphate ion to form sodium sulphate, i.e., Glaubers salt, which can be leached out of the soil with water.

In the eastern humid part of the United States, apply slacked lime or ground limestone (calcium carbonate). The problem in the east is acidity not alkalinity. In all these comments the reference is to garden or field soils. Potting soils are usually made up to suit the growth of certain plants.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of The Begonian, published monthly at Los Angeles, California, for January, 1946

STATE OF CALIFORNIA, } ss.
COUNTY OF LOS ANGELES. }

Before me, a Notary in and for the State and county aforesaid, personally appeared Maria Wilkes, who, having been duly sworn according to law, deposes and says that she is the Editor and Business Manager of The Begonian and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—The American Begonia Society, 1618½ W. 52nd Street, Los Angeles 37, Calif.

Editor—Maria Wilkes, 158 So. Oxford Ave., Los Angeles 4, Calif.

Managing Editor—Maria Wilkes, 158 So. Oxford Ave., Los Angeles 4, Calif.

Business Manager—Maria Wilkes, 158 So. Oxford Ave., Los Angeles 4, Calif.

2. That the owner is (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

The American Begonia Society, 1618½ W. 52nd Street, Los Angeles 37, Calif.

Harold W. Hart, President, 1314 Dorothy Drive, Glendale, Calif.

Arthur E. Nelson, Past President, 506 Le Roy Ave., Arcadia, Calif.

George Lawrence, President-Elect, 447 No. Hidalgo Ave., Alhambra, Calif.

Mrs. A. N. Hartwell, Corresponding Secretary, 1719 Alamitos Ave., Monrovia, Calif.

Murray Hawkins, Treasurer, 609 So. Grand Ave., Los Angeles 14, Calif.

Mrs. Helen K. Krauss, Director, Clayton M. Kelly Research and Nomenclature Departments, 405 Cotswold Lane, Wynnewood, Pa.

Maria Wilkes, Editor and Business Manager, 158 So. Oxford Ave., Los Angeles 4, Calif.

Bessie R. Buxton, Co-Editor, 114 Central St., Peabody, Mass.

Mrs. Mary Ellen Clark, Membership Fees Chairman, 1618½ W. 52nd St., Los Angeles 37,

Mrs. W. C. Drummond, Public Relations Chairman, North Kings Road, Los Angeles Calif.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

None.

4. That the two paragraphs next above giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stocks, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is..... (This information is required from daily publications only.)

MARIA WILKES, Editor.

Sworn to and subscribed before me this 30th day of September, 1945.

(My commission expires February 7, 1949.)

CORA R. BRAMON,

Meeting Dates and Speakers

It would be much appreciated if the Secretaries of the Branches would send meeting data to reach the Editor **NOT LATER THAN THE TENTH OF THE MONTH.**

The next meeting of the American Begonia Society Board will take place in the Los Angeles Public Library, Children's Library Room, Grand Street Entrance, Monday, JANUARY 28th, at 7:30 p.m.

THEODOSIA BURR SHEPHERD BRANCH

Tuesday, Jan. 1st, 7:30 p.m.

American Legion Hall
North Carolina St., Ventura, Calif.
Mrs. Wm. Smith, Sec.-Treas.
Ventura, Calif.

BELLFLOWER BRANCH

Tuesday, Jan. 8th, 6 p.m.

Masonic Hall Supper Meeting.
Mrs. Ardel Radle, Secretary
920 Flower St., Bellflower, Calif.

SAN FRANCISCO BRANCH

Wednesday, Jan. 2nd, 7:45 p.m.

American Legion Hall, 1641 Taraval St., San Francisco, Calif.
Secretary, Mrs. Walter Ashe, 1855 - 33rd Ave., San Francisco, Calif.

ORANGE COUNTY BRANCH

Thursday, Jan. 3rd.

College Hall, Santa Ana J. C. 917 N. Maine St. Santa Ana, Calif.
Mrs. K. D. Burdick, Sec.-Treas., Rt. 3, Box 355, Santa Ana, Calif.

PASADENA BRANCH

Tuesday, Jan. 8th, 7:30 p.m.

Casita del Arroyo
Lester F. Harrell, Sec.-Treas.
668 Bellefontaine St., Pasadena, Calif.

RIVERSIDE BRANCH

Tuesday, Jan. 8th, 8 p.m.

Home of Mrs. Margaret Thacker.
Mrs. Helen Hansen, Sec.-Treas.
Riverside, Calif.

WHITTIER BRANCH

Tuesday, Jan. 8th, 7:30 p.m.

Jonathan Bailey School, Room 19
Comstock Ave. & Hadley Street, Whittier, Calif.
Madeleine Hall, Secretary,
509 Friends Ave., Whittier, Calif.

INGLEWOOD BRANCH

Thursday, Jan. 10th, 8 p.m.

Women's Club of Inglewood,
325 No. Hillcrest, Inglewood, Calif.
Mrs. Fred Witman, Secretary
3856 W. 27th St., Los Angeles 16, Calif.

HOLLYWOOD BRANCH

Thursday, Jan. 10th, 6:30 p.m.

Birthday Dinner.
Plummer Park, 7377 Santa Monica Blvd.,
Mrs. Roslyn Duval, Secretary
843 N. Sierra Bonita, Los Angeles, Calif.

SANTA BARBARA BRANCH

Thursday, Jan. 10th, 2-4 p.m.

Neighborhood House, 800 Santa Barbara St., Santa Barbara, Calif.
Mrs. Stanley Bateman, Sec.-Treas.
P. O. Box 17, Goleta, Calif.

MARGARET GRUENBAUM BRANCH

Mrs. W. E. Jones, Sec., Willow Grove, Pa.

CALIFORNIA HEIGHTS BRANCH

Friday, Jan. 11th, 7:30 p.m.

Home of Mr. and Mrs. Jos. A. Smith, 250 E. Howe St., Long Beach, Calif.
Mrs. Merle H. Penrose, Sec.-Treas.
4142 Walnut Ave., Long Beach 7, Calif.

LA MESA BRANCH

Monday, Jan. 14th, 8 p.m.

La Mesa Grammar School
La Mesa, San Diego Co., Calif.,
Sec.-Treas.: Mrs. Joseph Christofferson
4491 Culbertson St., La Mesa, Calif.

NORTH LONG BEACH BRANCH

Monday, Jan. 14th, 7:30 p.m.

42 East Market St., North Long Beach, Calif.
Mrs. Mary Coon, Secretary,
5511 Olive Ave., Long Beach, Calif.

LONG BEACH PARENT CHAPTER

Wednesday, Jan. 16th, 7:30 p.m.

Colonial Hall, Tenth & Locust Ave.
Mary Hotaling, Sec.-Treas.
324A Temple Ave., Long Beach 4, Calif.

PHILOBEGONIA CLUB BRANCH

Irregular Meetings

May T. Drew, Pres.
Box 331, Narbeth, Pa.

EVA KENWORTHY GRAY BRANCH

Monday, Jan. 21st

Community House
Tillie Genter, Sec.-Treas.
7356 Eads St., La Jolla, Calif.

EAST BAY BRANCH

Tuesday, Jan. 22nd, 8 p.m.

Council Chambers, Berkeley City Hall
Dick G. Goodnow, Secretary,
2519 Milvia St., Berkeley 4, Calif.

GLENDALE BRANCH

Tuesday, Jan. 22, 8 p.m.

329 No. Brand Blvd., Glendale, Calif.
Mrs. Helen Grigsby, Secretary
958 E. Mountain, Glendale 7, Calif.

ALFRED D. ROBINSON BRANCH

Wednesday, Jan. 23rd, 7:30 p.m.

Hall, Point Loma Community Church
Udal Street at Poinsettia Dr., San Diego, Calif.
Mrs. Merrel H. Taylor, Secretary,
2838 Chatsworth Blvd., San Diego, Calif.

SAN GABRIEL VALLEY BRANCH

Friday, Jan. 25th, 8:00 p.m.

American Legion Hall
720 N. First Ave., Arcadia, Calif.
Mrs. W. H. Corbett, Secretary
2017 S. Fourth Street, Alhambra, Calif.

NEW ENGLAND BRANCH

W. C. Atherton, Treasurer,
60 Chestnut St., Wakefield, Mass.

SAN DIEGO BRANCH

Monday, Jan. 28th

Hard of Hearing Hall
3843 Herbert Ave., San Diego, Calif.
Mrs. A. P. Carlton, Sec.-Treas.
624 Arroyo Dr., San Diego 1, Calif.

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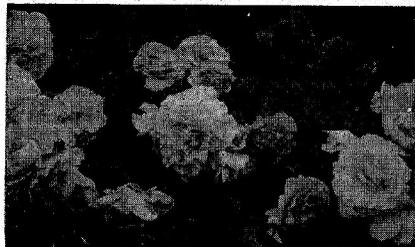
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