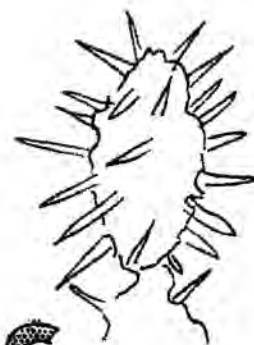




ESPINAS

Y

FLORES



TOMO IV, No. 7

July, 1969

PUBLICATION OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY

LOOK UP, NOT DOWN

IT SEEMS LIKE we've been away for a ter-

ribly long time.... let's see now, when was it the sun last put his countenance upon us...

April showers did bring us bouquets of May flowers.... What will the low cloudiness of June bring - about that we're not at all sure..... but keep your eye on the future more than the past, for that is where you will be spending the rest of your physical existence. "Grow old along with me! The best is yet to be, The last of life, for which the first was made, Our times are in Hi hand, who saith, 'A whole I planned,' Youth shows but half, trust God, see all nor be afraid!" (Robert Browning)....

The gardener is a man of the future... he looks at the freshly raked brown patch of newly sown soil, and asks, "Will it grow this time?"... he ponders his repotted and repotted overgrown Opuntia and wonders, "Where will I put it next year?".... he looks at the ribbons of flower shows past and asks, "What have I done lately?... You and we belong to a "doing" organization... we can look back on our accomplishments with pride and a full measure of saccharine scented prosperity... but as fallen foe lying motionless in the dust, accomplishments serve no other useful purpose than to have sharpened our mettle for the opportunities to come...

JULY MEETING

Saturday, July 5, 1969 - 2 pm

Floral Association Building

Balboa Park

FAIR RECAP

Fair Committee

PLANT SALE

EXCHANGE TABLE

REFRESHMENTS

It is unfortunate by necessity that we spend a considerable effort in giving verbal homage to pristine deeds and their motivators; because it isn't anatomically possible for everyone to participate in the occurrences that give impulse, texture, and form to our fellowship....a few short years ago we were but a handful as the gavel resounded at the first meeting... Now we number in the hundreds covering the length and breadth of our land and

(Continued next page)

LOOK UP, NOT DOWN (continued)

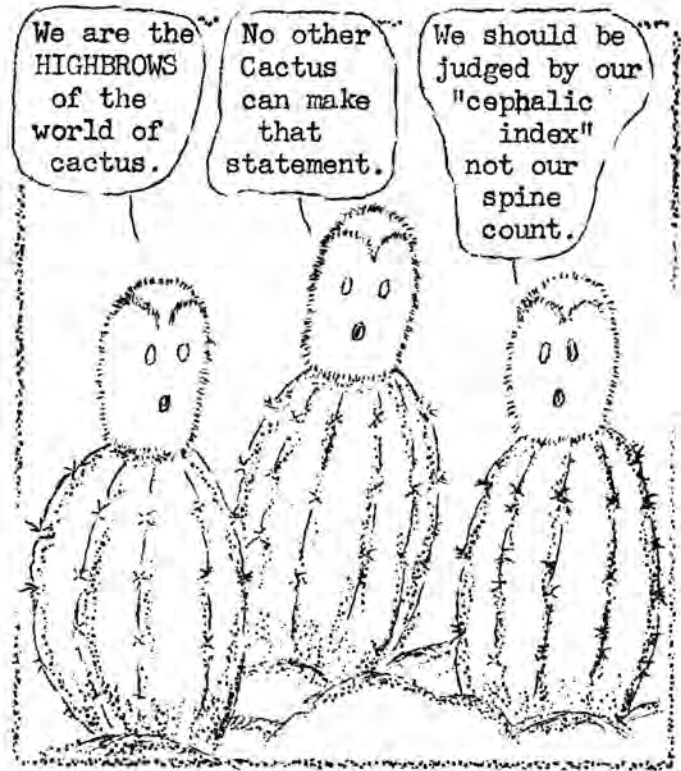
extending beyond our shores to vastly different environs, which strangely enough contain appetites not dissimilar from our own... "Cactus" ... and the people who collect them. Someone once wrote, and we paraphrase, the San Diego Society is a stage, and all the members are actors playing out their roles as tiny fragments of gems reflecting their inner light to the brilliance of the whole.

What do you want to do, and when do you want to do it are key phrases in our activities. Whatever it may be, there will be eager hands to help and enthusiasm to see the job through. At one time the "Fair" was practically our sole being, but now, even though it remains our principle source of income, it joins with others among the ranks of our manifold interests. Four short fairs ago, we had difficulty in finding one hundred plants to display in the cactus garden; now days we have access to that number from a number of members' gardens...

In the not too distant past our plants were rarely seen except at the Fair or occasionally at the "Braggin' Table"; not true now, our members individually or as a club display in various floral exhibits throughout the year, and often have taken members to see the plants. The influence of the succulent worshippers is having an ever increasing impact on the shape of our surroundings.

In nine years we have matured into a vital and stable institution; but sometimes we have more strength than will, and often merely for an excuse say that things are impossible. The worth of our society, in the long run, is the worth of the individuals composing it. No snowflake in an avalanche ever feels responsible, but this year as we deposit the treasure of Expo '69, let's resolve to get involved; Earnest, active industry is a hymn of praise, - a never-failing source of happiness. Let's find a cactivity for you. Look up, and not down, look forward and not back, look out and not in, and lend a hand. Send your thoughts on into A. Phidd and Nema Toed; as Oliver Wendell Holmes once said, "Many ideas grow better when transplanted into another mind than the one where they sprang up.

-- js



HIGHBROW MELOCACTUS



E y F. The kind words expressed about my garden makes the effort worthwhile, and a pleasure to entertain a group such as yours.

DEAR KITTY - Happiness is like a kiss; in order to get any good out of it, you have to give it to someone else.

DEAR NEMA - Leaving Florida, direction uncertain.... a wonderful vacation.... be heading home soon.... RAIN, RAIN, RAIN, and so very hot... Miss you all.

Bill & Ruth Nelson

DEAR B & R - The trouble with trying to get away from it all these days is that most of it is portable.

N.T.

DEAR NEMA - Thank you for the June issue of

Kitty Sabo.

N.T. (cont. next page)

POTPOURRI - Continued

DEAR NEMA - Enclosed is Mr. A. Phidd's billfold. We found it yesterday when we were cleaning up the Trading Post... Thank you for dropping by.

-- Adeline Mushel

DEAR ADELINE - A good deed is never lost; he who sows courtesy reaps friendship; and he who plants kindness gathers love... We will return to the "Banner Queen Ranch" as often as possible and advise others to pause at the bottom of the Banner Grade outside Julian for refreshments and a good word....

-- N.T.

DEAR NEMA - It was a great pleasure for myself and other members of the convention committee to read the June copies of E y F. All the hard work that goes into planning a convention is repaid when it is appreciated and enjoyed by those who have participated.

-- Ed Gay

DEAR ED - Life's greatest pleasure is that which rebounds from hearts that you have made glad.

-- N.T.

DEAR NEMA - I hope you will introduce me to Agave collectors in your society... These plants are my first love.

KAZUMICHI OKAMOTO
163 Ashima Niihama-Shi
Ehime-Ken, JAPAN

DEAR KAZ - The love of Agave is a love which requires neither justification, apology, nor defense... Correspond to Bob Taylor, 1640 E. Main, El Cajon, California, 92021, George or Jim Kennerson, R. 2, Box 295, Holtville, Calif. 92250; the Editor, Jim Stalsonburg, 10274 Madrid Way, Spring Valley, Calif. 92077. All are "hooked" on these plants one way or another...

--N.T.

DEAR NEMA - Is there somebody interested in corresponding and exchanging plants and seed with a Czechoslovakian Cactophile.....

DOC. MDR. V. HABERMANN C.Sc.
Plzen, Karlovarska 48
Ceskoslovensko

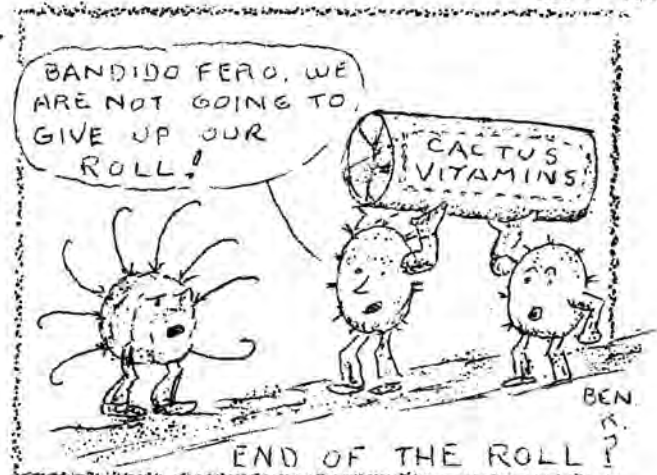
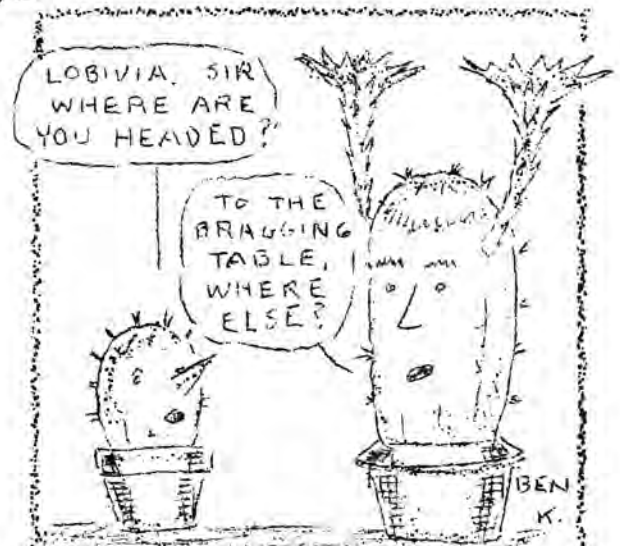
DEAR HABERMAN - We are here to add what we can to, not to get what we can from.... Doc Vaughan, 1041 Leroy St., San Diego, Calif. 92106, is corresponding with one of your fellow countrymen, Professor Ferdinand Pleanich of Olomouc; perhaps you know of him... We hope this span of interest will develop in activity as well as scope.

--N.T.

DEAR NEMA - Our Society is very happy to be receiving a copy of your EyF. In return we are sending "Cactochat", the New Zealand C&S Soc. Journal - Mrs. D. Malcolmson.

DEAR MRA. Malcolmson - Thank you for the back issues of "Cactochat". They will soon be in our library for all to enjoy... It is a good book that is opened with expectation and closed with gratification.

-- NEMA TORO



HOYA CARNOSA
-SUCCULENT
OF THE MONTH

Three books and little more than three lines available on HOYA CARNOSA..... found more in "How Plants Get Their Names"—namely: HOYA, the Wax Plant, a climbing, flowering vine was named for Thomas Joy, 18th century head gardener to the Duke of Northumberland at Sion House on the outskirts of London.

Carnosa is in reference to the fleshy leaves, two to four inches, which are rather leathery as well as waxy and loosely spaced along the trailing stems. Short aerial rootlets are produced along the stem which attach to any surface offering a supporting grip. It grows to ten feet.

Turned to my file of clippings from magazine articles where from a wealth of material I gleaned the following: Hoya carnosa is a member of the Asclepias (milkweed family), native to India and also found throughout eastern Asia. It doesn't bloom until it is two or three years old. Hoyas have a peculiarity worth noting...their blooms are produced on knobby spurs in the leaf axils which should not be removed as new buds are generated at that point for the following year's bloom.



The delicate ivory white or pink color of the flower is reminiscent of fine translucent china. Hoya blooms are among the most exquisite creations of nature and it is hard to believe the porcelain ball of five-pointed double stars, so geometrically perfect, is real. Because there is a drop of honey-nectar on the glimmering ruby crown of each bloom it is also called "honey plant". Incidentally, the waxy pollen is united in masses, posing an interesting problem of pollination, made even more difficult because the insect that in nature accomplishes this is foreign to the U. S.

Fragrance apparently is in the nose of the hoyas—smeller for descriptions ranged from delicately elusive and barely noticeable to extremely fragrant.

One article stated authoritatively that to grow to perfection, one should start with a small plant and pot it in a light porous soil mixture, "commercial African Violet soil" is great for this as good drainage is essential....and place it in its permanent home, where it will have lots of light but not direct sun. Let it stay there with a minimum of disturbance. They don't like to be hovered over, handled or constantly moved around. Water sufficiently to keep the soil moist but not soggy in the active spring and summer season, and just often enough in the winter rest period to keep the leaves from shriveling. Misting the foliage is good for keeping off dust as well as providing humidity. Fertilize regularly in spring and summer; withhold food in winter. Repot only when the roots come through drainage holes. Another expert advises transplanting only after the top of the soil is covered with tiny green roots. Whichever—transplanting should take place in early spring. Sunset says "blooms best when potted in rich, heavy, well-drained soil; usually grown in containers even outdoors. Johnson's recommend growing on a trellis in rich humus soil, generous watering and fertilizing once a month.



The worst pest is the rootknot nematode. If there is a nematode within 100 miles it can find a hoyas plant. Take cuttings and start over. Aphids enjoy it too, but can be easily controlled by aerosol sprays.

More cultural advice than one ordinarily encounters confirms my theory that plants are individuals and like people, some can thrive in the most unlikely and adverse conditions and by the same token others cannot make out with perfect environment.

(Cont'd next page)

HOYA CARNOSA : Having had a number of hoyas through the years but never a single blossom, I am forced to theorize. Members who have had success I hope will share their secrets. Asked several people at last month's meeting. Nellie Kennet's advice is to keep a hoyo potbound, not too dry, and to feed with HiBloom or other low nitrogen fertilizers. Helen Hegyi remembers reading that Epsom salts are good for hoyas--well diluted, of course. "Florabunda" Scott says the way to treat them is to refer back in this article to paragraph six, first four lines, and "add TIC". Nibby (Next month CALLISIA FRAGRANS)

EPITHELANTHA
MICROMERIS
(Cactus of
the Month)

If you should look down on a cluster of EPITHELANTHA MICROMERIS (ĕp' - y - thē - lăn' - thă mī' - krō - mēr' - ĩs, or mī - krōm' - ĕr - ĩs by Marshall) you would immediately know why it is called the "button cactus". This is a monotypic genus (meaning that there is only one species within the genus) first named Mammillaria by Engelmann, but later given its own genus by Weber. It is found in the Arizona, New Mexico, Mexico region. The genus name means the flower is borne on the nipple and the species name means a plant of small parts, which is certainly true.

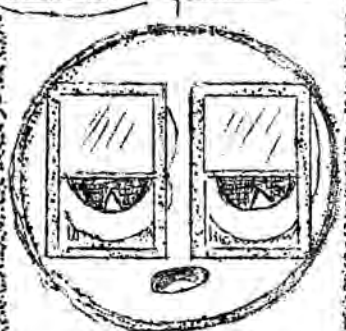
The cactus is proliferous with each head rarely measuring over two inches, but usually with a larger number of small heads. The nipples are very small, set in spiral rows and each nipple has a tuft of about 20 very small white spines at the tip. The spines are harmless and this makes it one of the "pettable" cacti. At the growing point of the plant there is a thick mat of white hairs and the flowers appear out of this mat. The pale pink flowers are about a quarter inch in diameter and they tend to blend into the background without very close inspection. Seeds are frequently set and the one-half inch long brilliant cerise seed pods emerge from the head the following year. Photographing one of these "micro" plants creates a problem. Most photographers will understand when I refer to it as a "belly" plant.

Several varieties of this species have been proposed but they may not be valid. The varieties are based upon the mature size of the head and how proliferous they are. Studies on seedlings need to be done and the habitat of each so-called variety would need to be delineated. There are also slight color differences in the mats of hair and spines of some specimens and these need study to determine if there is a true separation on a variety basis.

Growth of the button cactus is always slow, whether grafted or on its own roots. It should be planted in a fast-draining soil in half to full sun in Southern California. A single head will multiply to cover an area several inches in diameter in several years time if left fairly undisturbed and fed occasionally. There are crested forms of this species available and these are usually grafted for safety.

BY L. N. PHELPS

Would you raise the shades just a tiny bit Helen, and let in just a wee bit more light, PLEASE?



HAWORTHIA TRUNCATA

HAWORTHIA
TRUNCATA-
By: Helen
Hegyi

There were so very many breath-takingly interesting and beautiful plants on display at the convention. It was helpful, of course, if you knew what you were looking at and knew a little about them. Looking at plants, if you knew of them, you could not stop your appreciative gazing. Many were beyond the reach of the average hobbyist. However, plenty of them were well known to us but represented a defeating challenge because they are not cooperative with the ministrations of simple soul like myself.

I refer, for example to the flat-topped HAWORTHIA TRUNCATA, one of the windowed Haworthias. Amongst the eye-popping Myron Kinnach collection was a large, shallow Mexican-type pottery bowl with little colonies of Haworthia Truncata, a few heads to each colony, surround-

Cont'd.

HAWORTHIA
TRUNCATA,

Continued:

ed by pebbles so artistically complementing the plants. What was most outstanding was the robustness of the little plants. They were so fat, colorful, turgid and shiny that they looked positively sassy. Ah, did my fingers itch! It was well my conscience was functioning properly. So were the guards!

We all are familiar with one or another form of these interesting little windowed Haworthias as most of them are willing to thrive and are quite rewarding. Haworthia Truncata, however, defies me. I have tried growing it twice, only to hold short memorial services afterward. Yet a former member, Mr. Weir of La Mesa grew them out of doors without difficulty for years. He told me, recently, though, that his too are just not doing as well any more and he cannot fathom why.

The frustrating part is that the plants' needs are so few. They want mostly to be left along. This is difficult for me with my affliction of an over-active watering can and a "mother-hen complex".

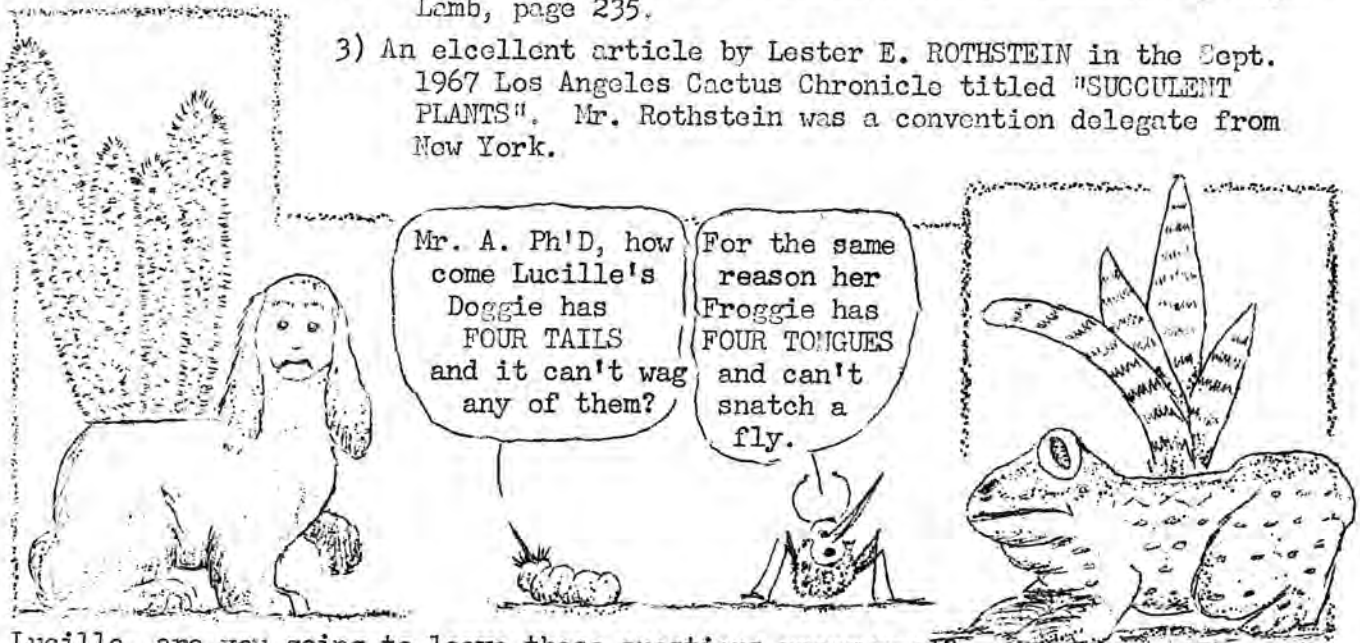
Haworthia T. is a very small plant from South Africa, possibly an inch or so tall. One of its charms is its different habit of growth. It is one of the very few growth forms wherein the leaves grow in two-ranked fashion--opposite facing. It is attractive at all stages. In its salad days it will have one or two sets of face-to-face leaves, flat-topped, as if lopped off squarely. With the passage of a few years it may have the mighty sum of six tightly packed, tongue-like sets of leaves, all in a single row like soldiers in close formation.

There are large and small forms, also a rosette form. The leaves are dark brownish green and may be roughly tuberculate. They may have a few short radiating white lines on the truncated surface, which surface acts as a window allowing light to pass down and outwards through the central transparent portion of the leaf.

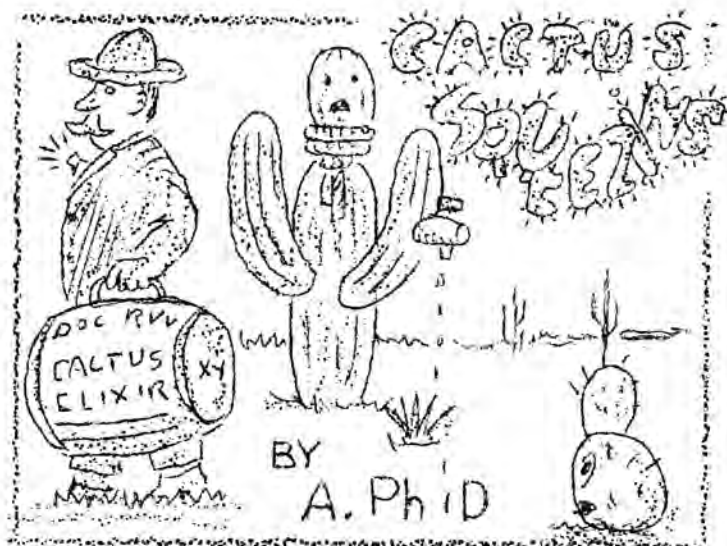
The roots are greatly swollen and contractile which keeps the plant withdrawn in the soil and they also serve as water storage organs. The plants need some winter warmth and very little moisture except in the hottest weather. Generally, full sun produces a beautifully marked plant. Growth is very slow and good drainage is important. The roots are tuberous and often two or three times the size of the plant. Transplanting is difficult. The sort-of tap root insists on breaking off. With me the scantest root fragment broke off, despite my gentlest handling and shortly thereafter I went into mourning, yes, again.

Attesting to the plant's popularity, I list a few of the many sources of illustrations and good information:

- 1) FAMILY ALBUM, 1966 Yearbook of the Cactus & Succulent Journal, page 13;
- 2) ILLUSTRATED REFERENCE ON CACTI & OTHER SUCCULENTS by Edgar Lamb, page 235.
- 3) An excellent article by Lester E. ROTHSTEIN in the Sept. 1967 Los Angeles Cactus Chronicle titled "SUCCULENT PLANTS". Mr. Rothstein was a convention delegate from New York.



Lucille, are you going to leave these questions unanswered?



AS I ADJUST my shades and squint at that unfamiliar glare in the sky....Summer is here.... Got to be... the calendar says so, and you can't argue with the calendar or the weather man. You can tear off the page, or turn to a different channel, if you don't like what they are saying... but as sure as the sun sets in the West, tomorrow there will be time for doing.... What's to happen in July... we get a check for about \$500.00 from the County Fair... which puts us in mind of the story LIVY FLETCHER was telling about BOB the other day... a man had called and wanted to know the secret of Bob's success in life...to which he answered in a low, cosmopolitan tone, "Are you a journalist - or - or - a detective?"

Sometimes there is such a jam up at the door of the meetings, that it is a wonder that PERLSO can get all the guests' names straight.... We look for her to chuck the whole deal some day, and when asked to introduce said guests... she'll stand, proudly raise a tankard of ale, and say, "Hail Guest... we ask not who thou art, If friend, we greet thee hand and heart, If stranger, such no longer be; but if you don't get your plant, don't blame me"... A letter was read inviting our group to attend a lecture by Sylvia El Monte on "Monstrosities of Plant Life" for the Crosstown Garden Club... EDITH COONRADT asked whether we go as observers or participants... Speaking of participants, N. P. STEVESON entered 8 exhibits at the Mission Valley Flower Show. Walked off with 8 ribbons... I'm blue with envy... Next year, Millie Dew, if you'll head up the effort, the club should support it full canon.....

When's the next "CACTUS CAR-A-VAN"??

Accolades from near and far have been received for the noble efforts extended by our representatives to the National Convention in putting together "Expose '69"... together with our thanks, gang, for the help when our backs were up against the wall... Where's the next Car'a'Van going..... One of the nicer touches to the exhibits at the fair was the top dressing of the potted plants with "Crestline Rock"... \$1.25 per bag at Hazard's.... a collection of flowery foreign postage stamps was presented to Pres. GREENWOOD by SCOTTY as a memento of the convention.... Walt is a first-line collector.. the only man we know who'll tear a stamp he doesn't have right off the envelope before it's even mailed.... each month Mabel keeps worrying whether they'll shut off the lights. Our Society was given an overall exhibit award at the Convention, plus some outstanding individual selections by WALT SCOTT AND WALT GREENWOOD.... look forward to El Paso in '72.... How does Huntington Gardens or Rancho Santa Ana sound in between times?.....

JULIANA RICE related with contagious enthusiasm the events of her trip to the Aloe Hill Garden, and the merits of this group of plants for year round enjoyment... Joint plant auction with Palomar C & S Society coming up in August at Taylor's Cactus Gardens.. What a bash.... who'll ran-rod this fun thing.... WARREN BUCKNER'S pictorial discourse on a jaunt to Tegelberg's and to the "end of the Baja Road" with BOB TAYLOR is fitting for a long winter's even by the fire.... it'll warm the cockles of your heart or burn the soles of your shoes... depending on what time of the year it is... we're ready... How 'bout another trip south of the border... complete with "HER NIBBS", Miss Margarita.. excuse me, ma'am, an unintentional mistake.....

Not too long ago, the Society held an open house weekend at the Floral Building.. the turnout and response was terrific for an unheralded cactivity... who was it that suggested that we hold an annual Cacti & Succulent Show, open to the public, as well as
(Continued next page)

CACTUS SQUEEZIN'S - Continued

members, to display their wares... good show ... next time with a little more feeling and newsprint.... What ever happened to "Baby Toes"... which reminds us of the sawed off stumps of Haworthia Truncata, the windowed plant with the built-in light filtering system, so ably described by HELEN HEGYI at the last meeting.. WALTER, could you spare one... Helen needs to get her postage stamp garden going again.... EYDIE has a better idea... new mast head for E y F soon.... Two new gardens for public display... San Diego de Alcala Mission, a very complimentary setting for the first California Mission... also at Sea World in front of the Seal and Penguin show, which recently changed its program format to a Wild West happening.. not very likely, but effective...landscaping artfully done by the KENNERSON's of El Centro and the hermit of that over grown cactus patch on Madrid Way in Spring Valley... Let's take an old fashioned walk, and tip toe through the sedum with us....

HAZEL SCOTT'S dialogue on the eats at the convention sent the new Duncan Hines book back to the publishers for rewrite.... CACTO-PHIL CORLISS closed his garden for a brief respits, but will open again by appointment after firecracker day.... He did a very fine take on the trips through Huntington's Hamillaria menagerie and Madame Ganna Walska's grand estate... DAISY AUSTIN, editor of "Ozark Gardens" a highly recommended garden news journal, was triumphantly ecstatic over the success of her new "personal" column, as she swept up the broken glass and debris from the brick irreverently tossed through the editorial office's window... The "Braggin Table" was a vision of floriferousness with NELLIS KENNETT'S Hereroa Dyeri, WALT GREENWOOD'S Noto-Hazelbergi, LE ROY PHELPS' Epi "Empress", and WARREN BUCKNER'S Echinocereus Dasyacanthus, all taking awards in their respective classes...my, but doesn't the competition seem to get tougher when the exchange table is loaded for bear... Let's take a trip to Bermuda... or Vallecitos... or Ensenada... or somebody's backyard.

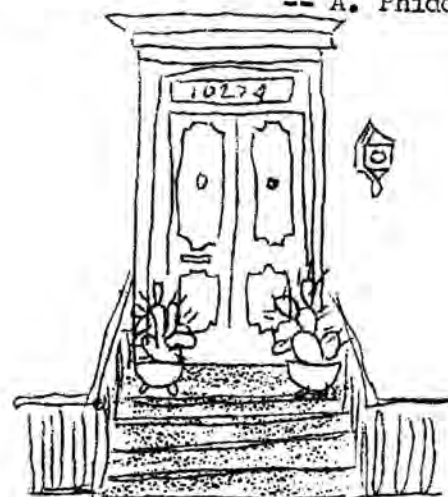
DOC VAUGHAN remembers back in the early 1900's, when he brought his young bride to San Diego and visited the then outstanding Botanical Cactus Garden and the Kate O. Sessions Aloe-Agave Garden in Balboa Park. Such were the days - cold beer, straw hats and that ole gang of mine.... Since the war the Cactus Garden has lain fallow, and the Aloe-Agave Garden was pushed aside in the name of progress, and badly needed parking spaces for the "Horseless Carriage".... The remains of Katie's passion were placed over on Park Boulevard around the

Carousel, but alas, the inevitable wheel of progress is about to roll over the last vestiges of our adoration... Now is not the time to be a tacit Society.... We need a broad man sharpened to a point... several, if necessary.... negotiations can and should begin with the "City" for a permanent home for our forgotten bairn of horticulture... We have the opportunity and potential to have the finest Cactus and Succulent Garden in the world... who knows... miracles sometimes occur, but one has to work terribly hard for them.....

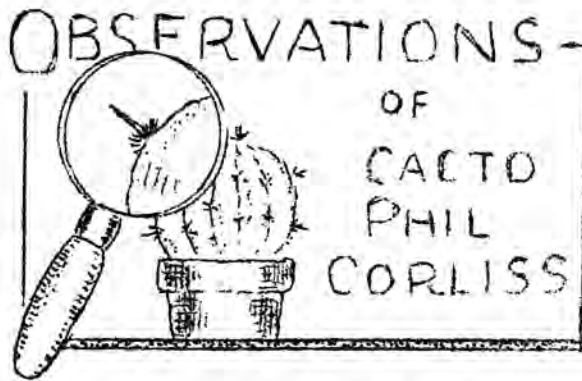
-- A. Phidd



CACTUS CONGLOMERATE



A GREGARIOUS WELCOME



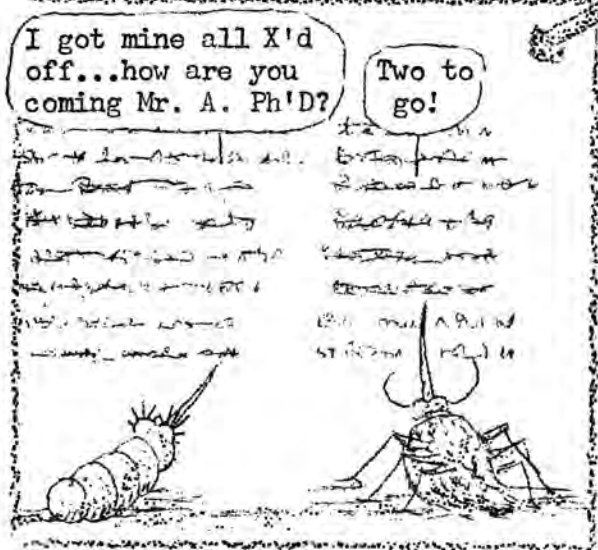
SENOR TAMAUZIPAS GUANAJUATO recommends trichocereus spachianus as the best grafting stock. Herr Pragus Heidelberg says that trichocereus stock distorts growth of the scion and does not survive for long. He recommends only cereus peruvianus. Prof. Rebutzi uses only myrtillocactus which he says is hard, dependable and long-lived. But Dr. Kansas St. Louis has clearly demonstrated the superiority of echinopsis multiplex because of its ease of culture, compatiability with all scions and rapid growth.

Who is right? What stock should Andy Amateur use? It depends on where he lives! He must discover which stock grows best under his conditions. For instance, in my Arizona garden, nyctocereus serpentinus, often recommended, was a most vigorous and rapid grower. In my cooler California garden it stands still and is yet to bloom! It is "soft", will not support an heavy scion and I find it useful chiefly for epiphyllum hybrids and rhipsalis. I like the fast growth on trichocereus spachianus and echinopsis stocks but branching and pups are a problem.

One of the greatest living cactus authorities told me that one cactus species would grow only on a specific stock. But in another leading nursery I saw this species thriving on several other stocks!

I think Frank Reinelt is right in concluding that most cactus will grow on any stock. Your choice must be based on your own experience as to what does best for YOU.

HOSPITAL or MORTUARY? Does your garden contain a plant hospital and/or a plant mortuary? Sure, it's a challenge to try to grow difficult plants or to cure sick ones, but don't overdo it. After you've tried everything and lost a certain variety four or more times, forget it and concentrate on things that do well for you. For instance, some things may require more heat or cold than you can provide. But if it is a question of soil, drainage, wind or available sun, try several places before you give up. If, however, like me, you just CANNOT resist overwatering and you lose a cactus or succulent time and again from rot, cross it off your list.



In case you are why your article didn't make the paper..the deadline for each issue is the 15th. of the month..articles received after that date cannot always be worked in..we don't know why it's just company policy...Ed.

OZARK GARDENS--AguaCaliente, Star Route..Julian Calif. 92086
Subscription rates- \$2.50 per yr.

What should the best dressed Cactophile wear...check the Expedition Outfitter catalog from Eddie Bauer-417 N. Pine St. Seattle, Wash. 98122.....Ed..

HERE COME THE JUDGES-- -

RESULTS OF JUDGING OF ENTRIES AT THE SOUTHERN CALIFORNIA EXPOSITION FLOWER SHOW---
DEL MAR, JUNE 24, 1969:

CACTUS GARDEN: 103 CLASS, 653 SECTION				SUCCULENT GARDEN: 123 CLASS, 674 SEC:					
	2190	2219	2228		2192	2220	2230		
	HARDIN PALOMAR SAN DIEGO				HARDIN PALOMAR SAN DIEGO				
DESIGN JUDGE	1	15	25	20	DESIGN JUDGE	1	22	25	26
30%	2	20	25	15	30%	2	15	25	25
	3	20	27	20		3	20	24	25
WORKMAN-	1	15	15	14	WORKMAN-	1	16	18	18
SHIP	2	15	17	15	SHIP	2	17	19	17
20%	3	18	15	15	20%	3	15	18	18
QUALITY	1	10	18	17	QUALITY	1	15	19	18
20%	2	15	20	20	20%	2	12	18	17
	3	10	18	15		3	15	18	15
RARITY	1	10	17	15	RARITY	1	16	18	17
20%	2	10	15	15	20%	2	15	18	16
	3	12	18	20		3	15	18	18
LABELING	1	3	4	4	LABELING	1	2	4	5
5%	2	3	4	5	5%	2	1	4	5
	3	3	4	5		3	2	3	5
LIGHTING	1	3	4	3	LIGHTING	1	4	4	5
5%	2	5	5	3	5%	2	3	4	4
	3	4	4	3		3	3	4	5
TOTALS		191	255	224	TOTALS		208	261	259
DIVIDE BY 3					DIVIDE BY 3				
SCORE:		63.6	85.0	74.6	SCORE:		66.0	87.0	86.3

CACTUS GRAFTS 104 CLASS, 654 SECTION

	HARDIN	SAN DIEGO	
	2191	2229	
DESIGN JUDGE	1	20	25
30%	2	16	25
	3	20	23
WORKMAN-	1	15	17
SHIP	2	13	16
20%	3	16	18
QUALITY	1	18	15
20%	2	14	17
	3	15	18
RARITY	1	15	12
20%	2	16	15
	3	15	18

GRAFTS, Cont'd:

LABELING	1	3	5
5%	2	3	5
	3	2	5
LIGHTING	1	2	3
	2	2.5	4
	3	2	4
TOTALS:		207.5	245.0
DIVIDE BY 3			
SCORE:		69.2	81.6

(JUDGES' NOTE: "2229 the best collection of grafts for general design and layout that we have seen here in four years--but it could be a bit better. The grafting table adds a nice touch.")

(Cont'd)