

Cactus Carnival

1972
SEVENTH

JULY 1-2-3-4

annual

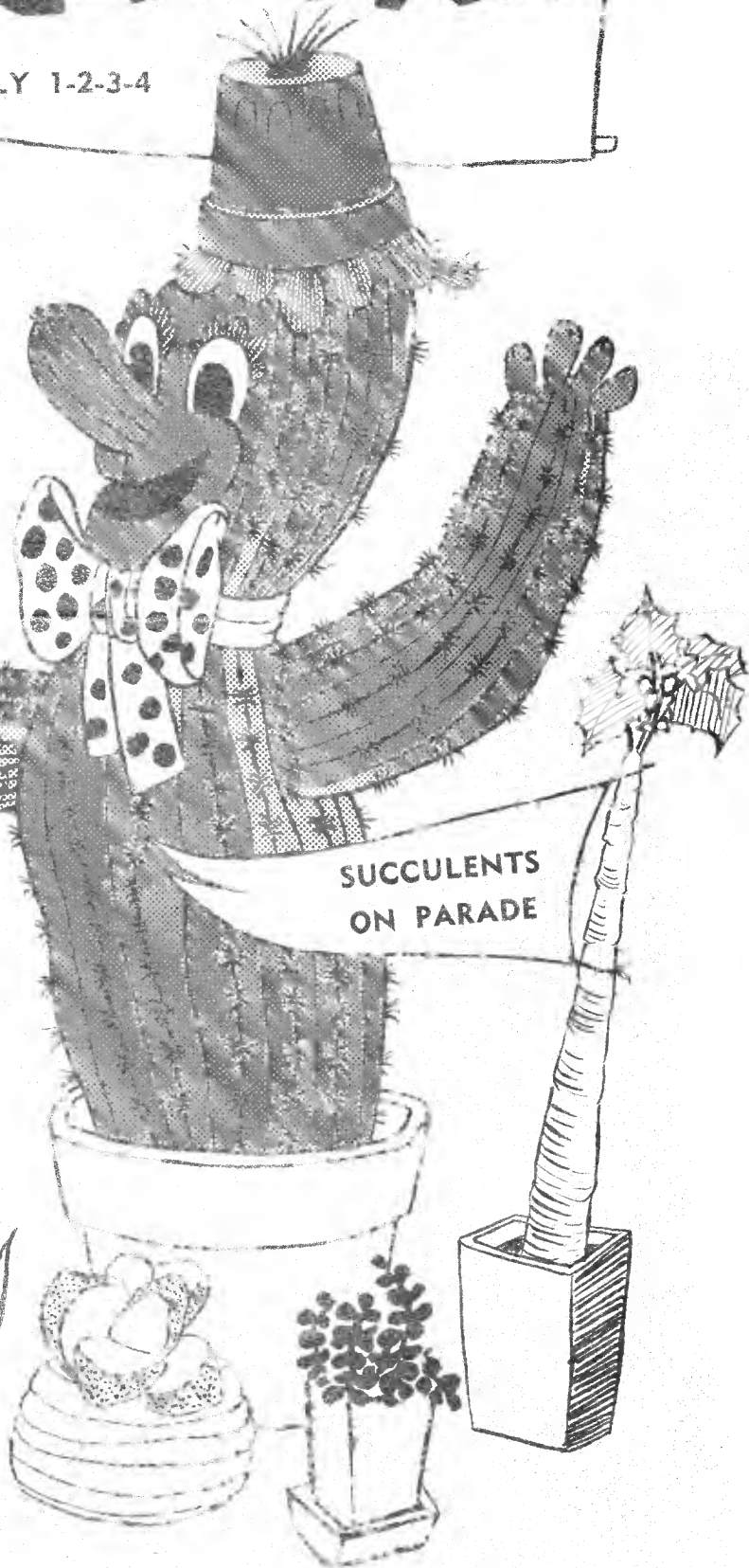
SHOW

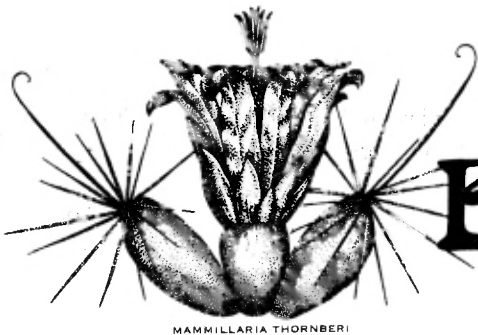
at the
Los Angeles State and
County
ARBORETUM
301 No. Baldwin Avenue
Arcadia

Sponsored by
**Cactus and Succulent Society
of America**

ADMISSION FREE — DOOR PRIZES

BIG DADDY WILL BE
POTTED FOR THE SHOW





MAMMILLARIA THORNERI

Espinas y Flores

BULLETIN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY
 Affiliate of the Cactus and Succulent Society of America, Inc.

TOMO SIETE, NUMERO SIETE

JUNE 1972

SYSTEMATIC BOTANY

EXACTLY WHAT DISTINGUISHES GENUS ECHINOCEREUS ??

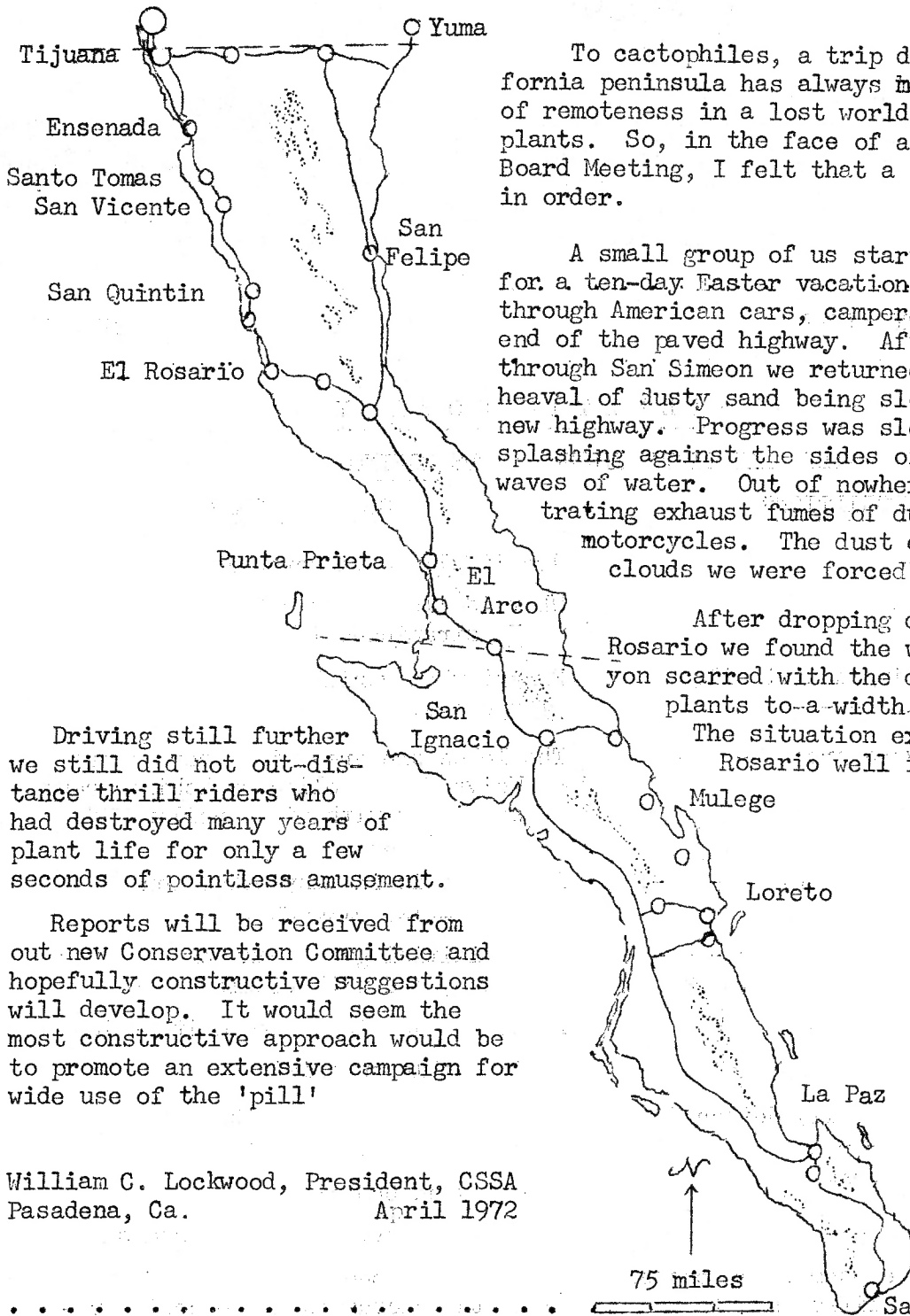
PUBLISHED DESCRIPTION*

OBSERVATIONS*

- | | |
|--|---|
| "Perennial" - - - | . Aren't <u>all</u> cacti perennial? |
| "Plants always low" - - - | . What is 'low'? Is a 3-foot clump of <u>E. stramineus</u> low? |
| "Spines of flowering and sterile areoles similar" - - - | . Except when variable - even within a species. |
| "Stigma lobes always green" - - - | . The lobes are green in other genera. We've field-collected <u>Echinocereus</u> specimens with pink, yellow and white lobes. |
| "Tube and ovary always spiny" - - - | . And so it is in many other genera - especially Wilcoxia. |
| "Fruits more or less colored" - - - | . After initial green many of ours turn brown, and with viable seeds. |
| "Fruit thin skinned" - - - | . Pacific Coast forms are quite thick. |
| "Fruit often edible" - - - | . Don't gamble on this! |
| "Spiny, the spines easily detached when mature." - - - | . The same occurs with other genera such as Wilcoxia, Peniocereus, Neoevansia. |
| "Seeds black" - - - | . Except when brown! |
| "Seeds tuberculate" - - - | . Except when ovate or round and smooth! |
| "Erect or prostrate, sometimes pendent over rocks and cliffs, single or caespitose, globular to cylindrical, prostrate or pendent if elongated." | . There's only one other form of growth in the cactus family - columnar - and some species tend toward it. |
| "Perianth campanulate to short-funnel form." - - - | . This vaguely comprises the complete spectrum of cactus flower forms. |
| "Flowers scarlet, crimson, purple or rarely yellow" - - - | . Frequently yellow - a true red, white and green are now known as persistent colors. |

*THE CACTACEAE, Britton & Rose, 1937

*Thanks to Ed and Betty Gay, Tarzana, 1972



To cactophiles, a trip down the Baja California peninsula has always meant gaining a sense of remoteness in a lost world of fascinating plants. So, in the face of an upcoming executive Board Meeting, I felt that a good rest would be in order.

A small group of us started down "Numero Uno" for a ten-day Easter vacation. We fought our way through American cars, campers and so on to the end of the paved highway. After a short detour through San Simeon we returned to the dismal upheaval of dusty sand being slowly shaped into a new highway. Progress was slow with dust clouds splashing against the sides of my van like solid waves of water. Out of nowhere would come penetrating exhaust fumes of dune buggies and motorcycles. The dust enveloped us in such clouds we were forced to stop.

After dropping down into Arroya del Rosario we found the west side of the canyon scarred with the debris of bulldozed plants to a width of about 200 feet. The situation extended past El Rosario well into Idria country.

Driving still further we still did not out-distance thrill riders who had destroyed many years of plant life for only a few seconds of pointless amusement.

Reports will be received from our new Conservation Committee and hopefully constructive suggestions will develop. It would seem the most constructive approach would be to promote an extensive campaign for wide use of the 'pill'

William C. Lockwood, President, CSSA
Pasadena, Ca. April 1972

SPECIAL PROGRAM ANNOUNCEMENT

LADIES AND GENTLEMEN OF THE SAN DIEGO CACTUS AND SUCCULENT SOCIETY -- ATTENTION !!!
Come June 3, 1972 at 1:30 p.m. in Casa del Prado in Balboa Park, you will witness the finest slide show ever of cactus and other succulent plant flowers - and this may be an understatement. The photos were taken in San Diego County. The photographer and speaker is very modest and unassuming about his achievements and success in 'flowering' plants. A wide range of genera and species is represented, and flowers are unbelievably prolific. The garden is thoughtfully laid out and carefully tended. The gardener knows his plants and their needs. Photography is professional, distracting or extraneous material is excluded. Each slide tells a complete story, the equal of which you've never seen. Our speaker will introduce himself, operate the projector and TELL THE STORY.

A very Special Invitation...

Bien Venidos!

It's my special pleasure this year to invite you to be part of the Expo's great flower and garden show, because this is my 25th year as Don Diego, your host at the Expo.

In a way an invitation hardly seems necessary—it is your interest and support over the years that has created the Expo's fabulous floral wonderland.

Is there another flower show anywhere with 9,000 entries and 180 feature displays? Or another show that can match the magnificence and beauty of these exhibits?

Will I see you at the flower show? I'm sure I will.

Don Diego
(Tom Hernandez)



June 27
- July 9

**SOUTHERN
CALIFORNIA
EXPOSITION
DEL MAR**

Del Mar's expo schedules extra day for '72 run

EVENING TRIBUNE Dispatch

DEL MAR — The Southern California Exposition, which began as the county fair in the 1800s will open at the fairgrounds here June 27 for a 13-day run.

Actor Tom Hernandez will play Don Diego, symbol of the fair, for the 25th time.

An extra day was added this year because of the record-breaking attendance during its 12-day run last year, when more than 483,000 attended.

The production is sponsored by the 22nd District Agricultural Assn., and directed by William Dumond for the second year.

The first fair, in National City, offered \$200 in cash prizes. This summer, cash premiums will amount to \$178,980—\$34,536 more than last year.

The National Horse Show, one of the nation's largest, will be held in conjunction with the fair, offering \$45,500 in premiums and \$54,625 in sponsored prizes.

Fair attractions will include a flower and garden show, livestock and junior livestock exhibitions, and art, photo, gems and minerals and home economics displays.

Afternoon grandstand shows will include Gene Holter's racing ostriches and camels, the Solid Brass Band, the Bright Side, and the Championship Rodeo.

Evening shows in the grandstand will include Buck Owens, singer Sarah Vaughan, the Kingston Trio, and Roberta Lynn and Harry Babbitt.

Special days will honor senior citizens on July 3; photographers July 1; square dancers July 2; barbershop quartets July 1, and baton twirlers July 8 and 9.

Free daily shows also will be offered on the Don Diego and community stages and dance floor pavilion.

SAN DIEGO CACTUS & SUCCULENT SOCIETY PLANS THREE EXHIBITS

SEC.	CLASS	
654	Cactus Garden	104
655	Succulent Garden	105
676	Graft Exhibit	125

Your plants - your help - your support are needed!!

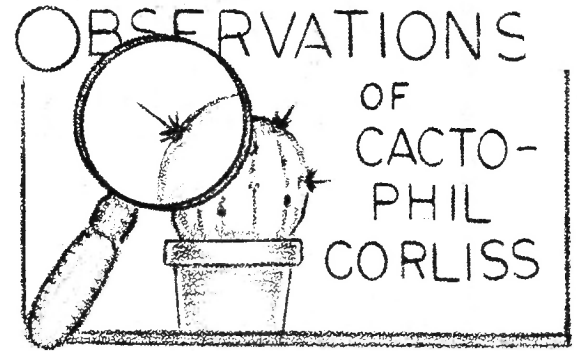
About Cactus Flowers

Although there are exceptions in each group, the plants of some cactus genera bloom when young and small while others wait until they are advanced in years and size. Outstanding among the ones that bloom on juvenile small plants are the neoporteria group, mammillaria, rebutia, parodia, and notocactus. Notable exceptions among the globular genera are such South American groups as copiapoa, islaya, matucana, oroya, and the mexican ariocarpi, which are slow of growth and bloom. Otherwise, the globular cacti are juvenile bloomers while the cerei are slow to mature and bloom. Relatively speaking, the early bloomers have a merry life but a short one; the late bloomers are the patriarchs of the cactus family.

The watchword with cactus is **PATIENCE**. I find that once a plant of a slow-to-bloom variety does have flowers it most often becomes a prolific and sometimes constant bloomer. In my garden, hildewinteria auriespina, maritimocereus nana, and many borzicactus and cleistocactus had no flowers until they were quite large. Now they have profuse bloom for almost the entire growing period except for the cleistos, which put on a big show for two or three months only.

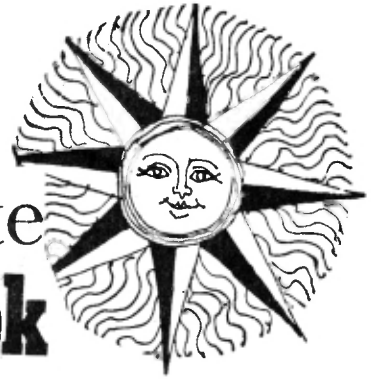
What determines the size, color, fragrance, and duration of flowers? If we believe in evolution, it results from the mode of pollination of the flower. For instance, flowers that are pollinated by nocturnal insects are light in color (usually white) and fragrant, to attract insects in the dark. So attractive are these light and odorous flowers that pollination is practically assured as soon as they open and there is no need for them to persist. Among such species are the many "Queens of the Night" and all the echinopses, which latter group does include many light pinks. Hybridizers have introduced other colors from diurnal lines but the one-night-only habit of the nocturnal species has resulted in a relatively short flower life, especially in the echinopsis hybrids. It is perplexing to note that although many flowers remain open longer if they are not pollinated, the flowers of some species, such as notocactus and echinocereus, continue to open for several days even after heavy pollination. Do flowers remain open for longer periods because they are difficult to pollinate? Notocactus and echinocereus, with their strong colors and open form, belie this theory. Do some species have greater numbers of flowers because they are difficult to pollinate? Some of the most profuse bloomers, such as the mammillarias zeilmanniana, multiceps, and viereckii make this implausible. Why do some echinocereus species have flowers that remain open both night and day? Nature threw a puzzler at us with the fraileas. In habitat, they are said to open their flowers for a few hours during bright sunlight. In cultivation, blooms are rarely seen, but they produce seeds in profusion cleistomaceously (did I make up that word?).

Finally, how important are the moon, the stars, and the sunspots in the flowering of plants? In my long horticultural life I have observed that in certain years, some varieties will bloom well in ALL PARTS OF THE WORLD, while others will experience a poor year everywhere. The only logical explanation must be that there is some astrological factor involved. I have known too many successful gardeners who believe that their garden activities must conform to astrological signs to doubt that there must be some truth to these theories. Consider this: If the pull of the moon is strong enough to cause ocean tides, why could it not exert a similar pull on the sap of plants? Should this pull be coordinated with hours of sunlight? Sunlight is not important to ocean tides, but it is a factor in plant life, and should it be correctly coordinated to the rise of plant sap?



Bottlebrush bloomed better this driest of springs than ever before. The ground beneath was covered with a soft red carpet of fallen stamens... My California poppies are still growing strong and I'll have seed for everyone... was delighted to find that they keep well for several days after picking. Their glowing golden sheen has brightened my SOQ office.

NIBBY'S
**Note
Book**



STATUS QUO on our succulent Garden of the Sun in the Park... Another donation will come from John Pasek who has aloes to give and is willing to bring them over to the Nursery. (His number is 271-0515.)

Ione announced that Mrs. Reif is selling a great collection of c&s. She lives at 5242 South Thorne and her telephone number is 582-0695 if we can trust our notes. Lucille Beckfield donated 107 pots to Sophie who already has potted 25 of Mrs. Reif's plants for Rickey to help sell - come & buy!

Membership cards are available ... See Edith (Make-mine-"MS"-too) Billmyer as you SIGN IN PLEASE... or catch Martin Money Mooney. It's one more detail for the Editor to pull the name-labels and incorporate the card in the paper, and too expensive to mail separately.

We have a lot of members giving programs for other flower-happy groups. Floyd Gable showed his slides of blooming epi's for Bill Nelson's EPIPHYLLUM SOCIETY... Lee Phelps missed our Baja Safari meeting because he was busy being featured at the annual meeting of the Quail Gardens Foundation in Encinitas...billed in CALIFORNIA GARDEN magazine as Dr. Leroy Phillips! But the Organic Gardener's newsletter announced that Jim Staltonstall was giving them a program... Still, if you want to know **WHAT'S GOING ON** in the gardening world of San Diego, all of the floral events of the season are listed on the inside of the cover of CALIFORNIA GARDEN...sorry I ran out but will have more at the next meeting. In the meantime, mark your calendar for June 10th to take a tour to Ensenada, Mexico, sponsored by the Floral Ass'n... 232-5762 for details & reservations. How many of you enjoyed the tour of the Park Nursery as guests of Floral? That group has so much going for it you'll wonder why you didn't join before which you are welcome to do in time for the annual potluck dinner June 20th Tuesday evening at Casa del Prado... Roy Seifert will speak on "Lighting and Landscaping the Garden".

The 17th of May marked Helen Witham's (Florida Canyon Botanical Garden Witham, that is) FERNS OF SAN DIEGO COUNTY book-autographing party. Flower power people were there at the Natural History Museum, thicker than cactus collectors - from whose ranks were our Mitch Beauchamp and the Museum's Dr. Reid Moran.

Back to the talent in our Society. I move that we establish a talent bank to provide more people with the pleasures of our cactus and succulent growing, giving us the fun of sharing. Having been personally contacted three times for the name of someone from our Society who would willingly speak, it is obvious that there is a need. Why not meet the need? While giving a program for a Garden Club might strike you speechless, any of us should be able to give half an hour to schoolchildren who would like to **know** more about those huge (sadly neglected) euphorbias and aloes and cacti growing behind the Conference Building

To quote Edmund Burke (again), "All that is necessary for evil to triumph is for good men to do nothing."

in the Park. (By the way, there's a splendid specimen of euphorbia (horrida?) covered with chartruese bloom right now.) Just serve a smattering of tidbits of information while a group eats their lunch there, for instance. Or give a few pointers to the kids in a Pacific Beach school who have their own succulent garden on the grounds. And to the La Jolla Garden Club, for that matter, since they also expressed an interest. OK? You don't have to be an EXPERT. Experts tell kids and garden club ladies more than they want to know, anyway.

In THE FORGOTTEN PENINSULA, A Naturalist in Baja Joseph Wood Krutch wrote:

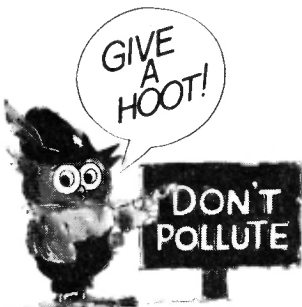
"Sometimes when I am asked if I am a botanist, I was never quite certain what I ought to reply until I got the assurance of the Prince of Botanists, Carolus Linnaeus, that I definitely AM a botanist — at least of one sort which he recognized in that classification which his mania for classifying everything led him to make. At the bottom of his list came that species of botanist who is merely "much given to exclamations of wonder."

How about that, Emily Parks? And Doc Vaughan? You must have been his inspiration -- certainly, you both are mine. HAPPY HAPPY BIRTHDAYS and many, many more.



POLLUTION HOOTER

Smokey Bear, that furry cartoon creature who's been saying for years that only we can prevent forest fires, has a new feathered companion: Woodsy Owl. Recognizable by his forest-green pants and Robin Hood hat, Woodsy is another brainchild of the Forest Service. His message, "Give a hoot!" is an urgent reminder that only we can prevent pollution. Woodsy symbolizes the Forest Service's broadened concern for the out-of-doors—water, air, plant life, soil—and a vigorous new campaign against vandalism and the willful destruction of nature. Woodsy appears on a 13-by-18½-inch poster available free from the National Forest Service, Pasadena, Calif. 91101.



SALUTE! to JULIE MOONEY and the Society's gratitude for a superb job lettering — Julie will be 14 in July. We are all impressed with her outstanding talent for it was she who did the winning announcements for the May competition of plants in natural containers. Judges were: Loyal Bibbey, Julianne Rice, Warren Buckner and Billy-theKid Bishop.

WINNERS were: In the Natural Planter Class

First - Ruth Richardson's flowing fountain of rock with a veritable cascade of succulents.

2nd --- Augie's "Hens-and- chicks" (Sempervivum species) Never underestimate the impact of a "common" succulent well grown -- truly, it was a mound of perfection!

3rd --- Nellie (Always-A-Winner) Kennett's "Crown of Thorns", a choice variety of Euphorbia splendens, the stark simplicity of a specimen plant set off beautifully with rock.

OPEN:CLASS WINNERS: First - Floyd Gable with Mammillaria surculosa - Oh, Floyd, what a memorable table you did set! All 41 could have been a winner, each in its own right! Scotty's Copiapoa was second, extremely handsome and unusual. 3rd was Frances Langer's group of tiny towers of miniature aloes, as neatly stacked as Frances is...

Ruth Nelson's collection of miniatures tucked away in empty snail shells bore a sign IF YOU CAN'T BEAT 'EM -- JOIN 'EM! was responsible for many a laugh. Augie's Notocactus leninghausii was an eye-stopper -- I counted 26 heads knowing full well there were more, the tallest three topped with

great ruffs of yellow flowers like an Elizabethan collar - GORGEOUS - and who entered the hanging planter of Sedum (Christmas Cheer) guatemalense that was so striking? Another notable was a Greenovia aurea growing in rock as if they had been created for each other.

President Augie (Loose-and-Easy) Pfeiffer acknowledged Ellen and Bill and their daughter as coming the farthest to attend -- the Low's live in Simi Valley, about a 300-mile round trip... Charlotte Wittmeyer was Editor of the Henry Shaw Cactus Society's publication for 9 years and did a remarkable job ...we welcome her now as a new member of our Society --she became hooked on EyF! address: 223 Avery Drive - Kirkwood, Missouri 63122. Copies beginning with January should be in the mail soon - am taking your line, Charlotte, and asking a busy person to do it -- Walter Scott, Editor... Also, Carla Lange, Librarian of Missouri Botanical Garden - the missing issues you requested will be forthcoming; they must have been lost in the mail regrettably but it's nice to know you missed them.



Among the many questions asked after Reynold Heriot's BAJA SAFARI presentation was, "How did you happen to go?" and "How did you find out about it?" I went because I'm in love with Baja -- really -- and I found out about it by chance. Having attended a symposium luncheon on publicity and heard Neil Morgan speak, I fished a newspaper out of the wastepaper basket (did you ever have a strong Something-Told-Me feeling?) to read Neil Morgan's column for the first time -- the first thing I saw was a paragraph about Cortez Travel and Baja - fly to LaPaz and come back by VW minibus or vice versa. So I did. It was one of the nicest adventures of my life - An Odyssey, in fact. "9 days in the wild Baja" has whetted a voracious appetite...

The flight down was sheer topography! At 33,000 feet you can see both sides of the peninsula and spot landmarks -- it's a mapmaker's dream spread out before you, especially when the pilots are nice enough to share their view as they did with me. Every volcano, mountain and mesa, the valleys and canyons and islands, the bays and inlets are ALL visible. Swooping down on LaPaz one wants to cry out, excitingly tongue-tied, "Look - look - the cardones!" There seem to be millions, great multi-armed giants. And LaPaz itself is An Experience.

...Every time I've tried to write about Baja I've gotten a headache. Tonight is no exception... have finally concluded that my head is so full of Baja experiences...and it is there, and I am here...that it's because I am here and it is there... but we'll meet again.

"WHY DO PEOPLE WANT TO GO TO BAJA?" I can remember asking that question like ugh! HA! It's like a fever, a compulsion. Rereading THE FORGOTTEN PENINSULA is particularly exciting for I saw the landscape he describes so beautifully - I was THERE - I met Papa Diaz...oh dear, perhaps you had better not read the book or take the trip, or you, too, might come down with the incurable fever. Krutch says in the prologue: "A road, if you can call it that, wanders in Baja for some 50 miles across mountains and desert from El Marmol to a long-abandoned loading station at Santa Catarina Landing on the Pacific... We were stuck. But we were stuck in the middle of a highly inaccessible region I had been longing for several years to visit. The scene was weird even to one by now accustomed to the usual desert weirdness. Here all about me were the 30' cirios, or boojum trees, found nowhere else in the world except here and there in a few especially favored (or unfavored) spots, all within a radius of something like 125 miles. Here also Packycormus discolor, or the true elephant tree, raised its contorted branches, monstrously thick near the trunk and tapering

abruptly as they grow outward. Nobody, I had been saying to myself for several years, really knows the Sonoran Desert who has not seen these and other unique plants at home. And here I was at last.

The situation (being stuck) was one which usually produces a sort of irritated depression. Instead, I was in that state of high elation which is sometimes produced when one has got somewhere one has long wanted to be."*

That feeling I shared with Joseph Wood Krutch* when one of our two minibusses broke down -- what happened was really very simple: the motor mount broke and the whole engine slid forward. And stopped... The Mexican drivers were not only excellent drivers but mechanically familiar with a "Mexican fix" - their own term! They used the clutch cable to tie it back once it was correctly repositioned - maneuvering the jack horizontally instead of the ordinary vertical manner took care of that problem. But the engine had lost a bit of its verve and having four more of the steepest hills to go, we walked. Those hills were between Bahia San Luis Gonzaga and Puertecitos going north. They are really steep for a winded vehicle loaded with rocks...

Being in this state of high elation encouraged me to RUN up the rock-studded hills, the better to enjoy being where I wanted to be... and to prevent my exuberance from annoying the others. It was a GREAT trip! Can hardly wait to go again. ... Have Baja fever -- will travel.



the eagle-eyed,
the round-eyed,
the starry-eyed.

May 20th

BUS TRIP TO ABBEY GARDENS

all saw something to admire, to covet and to buy -- at the cleanest nursery with the largest selection of collector's items we've ever seen. It was a friendly, fun-filled, informal trip with a get-well card for Ruth Nelson being passed for signatures. Ruth was at Mercy Hospital for gall-bladder surgery and we all wish her a quick recovery. (Stevenson is in the Naval Hospital at the moment for a ganglion on his wrist. Best wishes to you, too.) Ruth Richardson passed snapshots of some of our doings to let us know that she is taking being historian seriously. Ricky Latimer and Frances Langer were first signed up and first on the bus with the best view... Hazel and Scotty got "the long seat" ... Oliver was lost for a little but Sophie knew he would turn up ... Warren & Virginia were last ones on but it didn't dim their enthusiasm ... Looks like those who collect cactus together, stay together, for Verna & John Pasek, Pat & Martin Mooney were among those having a joyful jaunt adding to their collection... as were George & Margaret Evans who added some fine euphorbias... Tony & Rose were a pleasure to hear oohing & ahing and challenged Hazel & Scotty as the big spenders of the day ... Julianne Rice chose some lovely Haworthias, Marcele Barfield had a boxful of treasures... so did Beatrice Norton... Nellie and Evelyn found a few, too, you'd better believe ... Veleda Sickels and I lost tract of Jean and Leta Hapeman after lunch but we'll wager they didn't miss a thing... Audrey Justice, Margaret Lickert, Jane Hubler, Albert Widen were also among Those Present. Minnie Mogil, Lauron Lovelace, Emily Parks and Harriet Sopp -- better luck next time! -o0o- Scotty and I both knew that another birthday was celebrated but it took Hazel to remember whose -- Just that of THE SAN DIEGO CACTUS & SUCCULENT SOCIETY, that's all! H A P P Y B I R T H D A Y T O U S !

(Thanks for the trip, Tony.)

EVOLUTIONISM)
 ---vs---)
 FUNDAMENTALISM)
 -----)
 By Doc R V Vaughan)
 -----)

In my younger years when I began to learn much about the various and sundry sciences, I was taught to believe that science in its entirety could and would solve all problems that beset mankind and could reveal all secrets of Creation. As years passed into history and wisdom of research became my hand-maiden I found that much that was written and taught was in grievous error.

Once there was a great "rhubarb" between FUNDAMENTALIST warrior William Jennings Bryan and EVOLUTIONIST Clarence Darrow. Much heat was generated between the two warriors but nothing was settled. The SCOPES trial made history and is forgotten by all except a few ancients like myself.

During the trial no mention was made of the POPLITEUS muscle of the leg that is found only in man. It flexes the leg. It is attached to the external condyle of the femur and shaft of the tibia. Without this muscle man could never have walked erect. This muscle is to my knowledge found in no other animal.

It is the popliteus that developed the brain of man. To stand erect was and is necessary to use the brain to balance. To me this fact greatly supports the Fundamentalists. In all my research I find that we have had the Age of Reptiles, the Age of Coal-forming forests of ferns and cycads, the Age of Crustaceans that gave the Earth vast beds of lime and shells, some of which are miles deep. On Cataline Island there is one bed sixty feet in depth that took millions of years to form. During all the epochs we have had a long history of the development of the hippos (horse) from a tiny creature the size of a house cat to the famed racers of this day and age. Yet all are horses - not camels or elephants. We can trace MOERITHERIUM to GOMPHOTHERIUM, GNATHOBELODON, STEGODON, MAMMOTH, MASTODON, to the two remaining types of elephants--Asian and African. Only the sizes changed. The smaller and the largest died from the Earth.

In the inspired picture given to us in fossils we know that fifty million years ago the first mammals appeared. Out of nowhere there appeared the tiny horse and the giant uintatherium (precursor of the ungulates) and the oxyaena our first carnivor. It is to be remembered that far more creatures of strange and mysterious types have come and then been wiped off the Earth than now inhabit what is left of this globe we call home.

It is true that all life comes from a sperm and ovum that mate to form a new life. It is true that at the start of development we have a worm type of life following the ovum, but for a short time only then the great change occurs. A dog embryo is never a cat or human.

Somewhere along the line it was decreed that birds would fly if they agreed to give up the opposable hand and decided to live in trees. Beyond that point they can never develop a culture of high degree. The bats extended the fingers to tremendous lengths and grew between each finger a membrane and a claw to hang by in the dark of caves and they sealed their doom. Man of all the mammals came down from the trees and out of the caves and stood erect and picked up stones and canes to defend himself. This caused his brain to take on Divine Attributes - he made shelters for his offspring, fought off the predacious animals, sought thru the forests and along rivers for food.

As I gaze upon the wasteland that man has left in his search for the easy life and in his search for secrets that we had better left hidden in the CREATOR, I wonder which school of thought is correct - Fundamentalism or Evolutionism. The hour is late, the storm signals are everywhere to be seen. Maybe we shall go as so many creatures have gone before and as the lemmings do - come to the sea and plunge ahead into the pulsing bosom whence all life came.

REGALEMENT

Every little morsel .
is made to please!! .
.

Many members do many things for our Club - each according to his particular ability and each in his own way. The final result is surprisingly good.

When our program ends and when our 'leader for the day' answers a final question, President Augie Pfeiffer declares a period for regalement - a short repast - a time for titbits, light conversation and good fellowship in between the major and minor portions of the day's program.

Our attention is called to a very interesting table, members of the Regalement Committee lift the cover and it is irresistible. Guests, visitors and members form lines which pass to the right and left of the table. Each passerby quickly chooses items most appealing to the dictates of his own individual appetite. And thence to the punch bowl or coffee maker. The spirit of the day and the tempo of the occasion appear to be reflected by the supply and variety on the table. The supply is volunteered and the variety represents individuality. Contributors - volunteers sign up months in advance - no pressures are involved.

When the "day to serve" arrives - the day selected earlier in the year, a variety of 'titbit tenders' appear. It is the plan to divide each into tasty tho small portions so there may be a sample for everyone. Usually, the favorite of one individual may be the favorite of many others. The Regalement Committee believes and experience dictates that a bite of this, and a bite of that and the other is preferable to three bites all of one kind. Tenders are best planned accordingly.

The 'regalement activity' is intended to be a break-even, self-supporting activity. An 'offering cup' sets at the head table where the line divides. Attendance has been in the area of 80 to 100. If each 'servee' makes a modest contribution the result can be a continuing and delicious refreshment table.

And never for a moment lose sight of the fact that the smooth operation of the activity is dependent upon and involves the most exacting and demanding efforts of any of the Club's many committees. Everyone surely is cognizant of the effort, time and work done each month by members of the committee in planning, phoning, driving, storing, buying, preparing, serving, even to the final clean-up.

The Committee deserves your complete, hearty and generous support. Ask yourself the question: "Would I be able to do as well?"

The Committee is: Elvira BIBBEY, Rose D'ATTILIO and Pat MOONEY.

Those who served in May were: Jean HAPEMAN, Leta HAPEMAN, Julianne RICE, Alice WELLS and Nellie KENNETT who made an "Anniversary" cake for our Past President and contributor extraordinary to our month bulletin "Espinaz y Flores" - Doc Vaughan.

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RUSSELL'S CACTUS COLLECTION
STILL SIZEABLE - - -
MANY STILL AVAILABLE

Cactus collectors and connoisseurs have made a sizeable dent in Richard L. Russell's fabulous cactus collection, but in spite of the activity hundreds remain in his possession and they still are available. It's getting to the point where he can count 'em now. (Refer to E y F, April '72, page 13)

If you're looking for good plants, uncommon species, a wide variety, all of which have been well taken care of and where prices are reasonable, you can get details by calling (area 714) 454 7658. His specialties were Mams, Gymnos, Lobivias, Rebutias, Fraileas and Parodias.

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AN OUT-OF-STATE SPECIALTY GARDEN: I have surplus plants, mostly 'Mesembs' representing 19 genera and over 100 species. Interested collectors write for list.
Ed Storms, 4223 Pershing, Ft. Worth, Texas, 76107 10 June '72

--FRANCIS J. BORG--

248 Zabbar Road
PAOLA -
MALTA -
EUROPE

..... Hello Friends: I'm sure some of you will be surprised that the MINICACTUS ROBIN has travelled to Malta. Lying in the center of the Mediterranean Sea, Malta enjoys an ideal climate - cactus-wise. The temperature never falls below 40° F, while during summer months - June to September - it is at least 90° F. Snow and frost are things never heard of in Malta. I saw snow once when on holiday in Switzerland.

Let me introduce myself. I'm 30 years old, a mathematics teacher and have been collecting cactus for about 8 years. Actually I started liking cactus much before, in fact since childhood. My parents' home is situated in front of the Argotti Botanic Gardens in Floriana. It houses one of the biggest (big cactus) collections. The bulk of the cactus there belonged to the late Prof. John Borg, a noted botanist who wrote 'Cacti'. As a kid I used to spend all my free time playing in the gardens and I took a liking to the big queer plants.

At first I collected cactus without bothering about names. Soon I realized that a plant without a proper name was not something worth keeping. At that time I used to keep my plants under a trellis on the roof. Since getting married and moving from Floriana to Paola, I realized a greenhouse was a 'must'. I constructed one - all wooden - and covered it with pale yellow PVC. It measures 14' by 7' and since the garden at my house is not a big one, to gain space I constructed it on the roof. The greenhouse is now almost full and I think I'll have to start thinking where to erect another one.

After three years I concluded the only way to increase my collection was to raise seed. During the year 1969 I sowed about 20 named species and I must admit I had a very disappointing start. I had no greenhouse then so I had to leave the seeds in a box on the roof with only a glass pane to protect them from the sun. In 1970 with the greenhouse completed, I sowed seed of about 80 different species and kept the plastic pots (2½" diam.) in plastic bags, and I had a big improvement.

In 1971 I sowed 200 named species using the same method but used "J. I. compost" with some peat instead of vermiculite which unfortunately is no longer available in Malta. I had tremendous success. In just over a year - I sowed in Feb. '71 - I have several Melocacti about 1" in diameter, several Haageocerei 1½" diameter and height, several Mammillarias including M. theresae, espostoa almost 2" high with a tremendous amount of hair and long spines. Indeed, the trouble now is - what am I going to do with so many surplus plants?

We do have a local Cactus Society, and I do take seedling plants every month which are sold or exchanged. Average price for a 2-year old seedling is 30 cents in Malta, but since I have so many seedlings I think I'll have to start exporting them to a foreign nursery. Some friends have exported plants to England and America for the last five years. There are no cactus nurseries in Malta.

On March 15th I started sowing 250 packets I have for this year. The seeds are from various sources: Karel Knize in South America, De Herdt in Belgium, Uhlig in Germany, Rowland in England, etc. I'll tell more about my method of sowing in detail next time but for the moment may I tell you that this year's sowing is another great success. Of about 25 different Melocacti (all named as I do not use 'mixed' seed) only M. tropicus has not germinated. Of about 30 different Mammillarias only M. deherdtiana and M. pennispinosa show no growth signs. All five Turbinicarpi germinated as have Coloradoa mesaeeverde, Uebellmannia pectinifera, Cochemiea poselgeri, Pygmeocereus marittimus, three different Oroyas, five Sulcorebutias, 8 Copiapoas, several Neochilena, Neoporteria, etc. What has disappointed me so far this year are the Gymnocalyciums and the Haageocerei.

Two things I consider of utmost importance for seed germination: (1) a reliable seed source - I never order all my seed from one source, and (2) the plastic bag method ensures a humid and semi-wet atmosphere, provided they also get heat.

(Cont'd. next page)

FRANCIS J. BORG

-- MALTA --

Continued

I put my seeds - pot and all - in a big glass-covered box on the roof which means it gets sun from 6 a.m. to at least 6 p.m. I will give more details in subsequent letters.

I must also add that I transplant my seedlings starting from September and that I use Phostrogen, a fertilizer. I have tried Biopan but this is dearer and it did not seem to have any better effect than Phostrogen.

There are very few cactus collectors in Malta. One cannot expect much more from such a tiny place. We do have a local Society and we also issue a magazine once a year, to which I contribute. We have monthly meetings. We normally have talks and discussions. The most popular meetings are those when we show colour slides of our plants. Average number at meetings is 20.

Enclosed is a picture of part of the collection of Prof. Borg at the Argotti Botanic Gardens.

I think that is quite enough for this time, but may I add this morning on looking at my seed pots, I have added about 8 more to the list of groups which germinated-- and that includes M. tropicus - which means all Melocacti have germinated this year.

Good wishes to all and good growing!

Yours

Franz
Franz

BUS TRIP - MAY 20
to ABBEY GARDEN

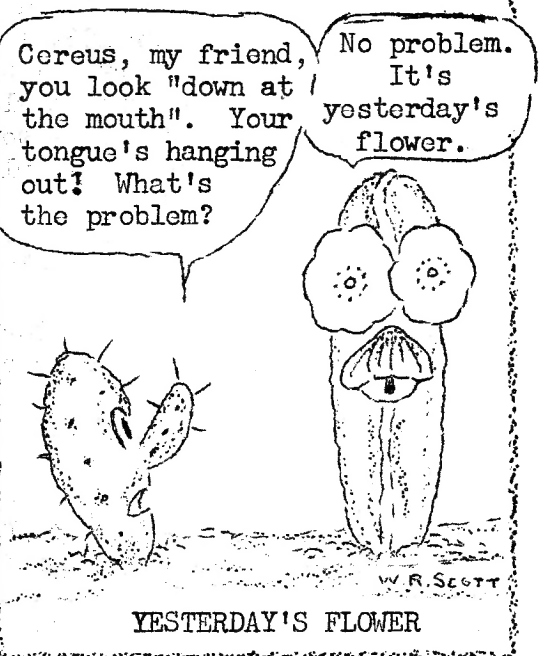
In THREE Chapters
by Tony D'Attilio

CHAP I - I was really scared on Saturday morning, May 20th when I arrived at the Organ Pavillion parking lot in Balboa Park and saw 500 people and 12 busses - and didn't recognize a single face. I looked round

the lot and saw two people, two familiar faces, huddled in a locked car, Oliver and Sophie Loyland. I knew what they were thinking -- 500 people, 12 busses, not enough seats - car 'hijack' to San Francisco, banks closed, no ransom on Saturday morning. I went over to reassure them. We looked at the busses - greyhounds on them. I was greatly relieved, what I had just experienced was a 'night mare'. I had that very morning been 'assured' a 'Transit' bus would be on hand as I had requested. I reached in my pocket, pulled out a dime and raced to a nearby phone. I dialed what I knew was the correct number - no response, employees' day off.

Back to the lot! A 'S. D. Transit' bus came up President's Way, circled the lot and parked 12th in line in the long line of busses. That was the 'end of the line' for me. I called for 'volunteers' and WE went over took possession of a bus and driver.

Next stop UCLA offramp at Wilshire and Westwood. It's simple enuf to drive onto a campus these days, but once you're inside with a bus - you got problems. ALL the curbs are painted red, and other spots have a 'pay here' booth with TWO guards. We picked out one in particular and had our bus driver drive 'wrong way' and 'wrong side' of the booth. It was as effective as a 3000-student protest group on a campus. Our problem was their problem. They were very cooperative and very happy to help us on our way. It was lunch time. Everyone had come prepared. That's another Chapter The Editor says this page is all the space I have in the June issue, mine is the 'last story', so if you will bear with me while I write CHAP. II and CHAP. III and take time out for a well-deserved rest, I'll let you in on other details about a most interesting and exciting bus trip to Abbey Garden.



MAY CONTESTS - OPEN HOUSE .

THE SHOW WAS GREAT!
CERTIFICATES WERE GREATER!
Chairman: O. Ed. Miller

Six very distinctive, carefully prepared 'Julie Gift Certificates' appeared out of somewhere* on May 6th to highlight winning entries in (1) NATURAL CONTAINERS and (2) OPEN CLASS contests.

*Somewhere is the creative and imaginative mind of a Junior High Miss, a 9th grader at Hilltop Junior High in Chula Vista, Ca. whose efforts, talent and time produced six individual, hand lettered certificates which surprised winners found beside their entries after the Judges' huddle. And HEAR THIS!! On the reverse side of each certificate, complete and pertinent information, hand lettered, appeared - quote:

"May 6, 1972 - The CACTUS SOCIETY is proud to present (winner) with this \$-\$-\$-\$-\$ GIFT CERTIFICATE to be used at Taylor's Cactus Gardens, 1051 Tres Lomas Drive, El Cajon, California

Certificates were initialed 'JM' on the lower right hand corner which when translated means "Julie Mooney". (See above) The six winners were more pleased with and intrigued by the novel and unusual certificates than they were by the \$-value appearing on the reverse side. The winners say "Thank you, Julie" and the Club says "We all THANK YOU, JULIE."

(HISTORIAN - Ruth Richardson please note: You are hereby commanded to obtain one or more of the 'Julie Gift Certificates' to include in the Club Archives for the enlightenment and guidance of those who follow. Thank you!) THE WINNERS:

NATURAL CONTAINERS

\$-\$-\$-\$-\$ RUTH RICHARDSON with a featherstone 'high rise', six-unit, double occupancy (thirteen cactus tenants) trimmed with a scattering of free-loading, non-segregated 'other succulents'.

\$-\$-\$-\$ AUGIE PFEIFFER with a rock container sporting a Sempervivium montanum Braunii, Austrian Alps, turf-forming, clustering rosettes to two inches, growing in crevases in rocks, leaves plain green, pointed, fleshy, flowers yellowish-white. Ed's Note: A worm's eye view of the container disclosed SMB roots which had free run of the earth but chose to do otherwise.)

\$-\$-\$ NELLIE KENNETT with a stately Euphorbia splendens in a highly suspicious "Moon-type rock" which appeared to have been pelted by bursts of cosmic rays in group formations, leaving conspicuous craters easily visible to the unaided eye. Where did you get that "Moon rock" Nellie?

OPEN CLASS

\$-\$-\$-\$-\$ FLOYD GABLE'S Mammillaria surculosa in a square 4-inch pot which had all the appearances of being 'conned' into blooming profusely and specifically on May 6th, 1972. Floyd had 40 other equally attractive and unusual entries, all similarly potted, and had the judges not been restricted, would have been winners. OH! For the life of a Judge! NO!!

\$-\$-\$-\$ YE EDITOR with a Copiapoa lembckii bearing a conspicuously fuzzy top out of which the Judges expected to see bursting flower buds at any moment, but their attention was distracted at the top momentarily. The gray glaucescent surface and the rigid jet-black spines could have been the winning points.

\$-\$-\$-\$ FRANCES LANGER with an attractive Aloe zanzibarica in a round 8" bowl with a top dressing of green aquarium gravel - green to match the plant and container - most attractive! Frances, were you born under the 11th sign of the Zodiac, AQUARIUS, or in Erin?

CONTESTS - CERTIFICATES

and the JUDGESANNOUNCING THE JUDGES:

Cont'd from previous page:

Honorable Loyal Joe BIBBEY, Billy 'The Kid' BISHOP,
H. Warren BUCKNER and Julianne RICE.

Special thanks go to the following for jobs well done:

The Loylands, Sophie and Oliver, and Ricky Latimer for special skill and know how in management of the plant table.

Wilson and Alice Wells for smoothing out problems based on the previous year's experience.

Perlso Lewis and Edith Werner for smooth handling of the "check in" and "check out" plant table.

Lauron Lovelace for materiels and greeting exhibitors with their offerings.

Edith Billmyer, our official greeter and "Twentieth Century" Hostess.

The MOONEYS who always accomplish the most with invisible techniques.

O. Ed MILLER, Chairman, would you arise from your chair, come front and forward for a moment and take a bow. You did a splendid job. It was a lot of work, wasn't it - but IT WAS A LOT OF FUN TOO, wasn't it?

.....

If there are any DISSENTERS to the way the show was handled, or to the Judges' decisions, the following suggestion is offered for your thoughtful consideration:

GO SIT ON A CACTUS, THEN TRY TO DESCRIBE YOUR FEELINGS POINT BY POINT.

.....

MORE ABOUT GRAFTING

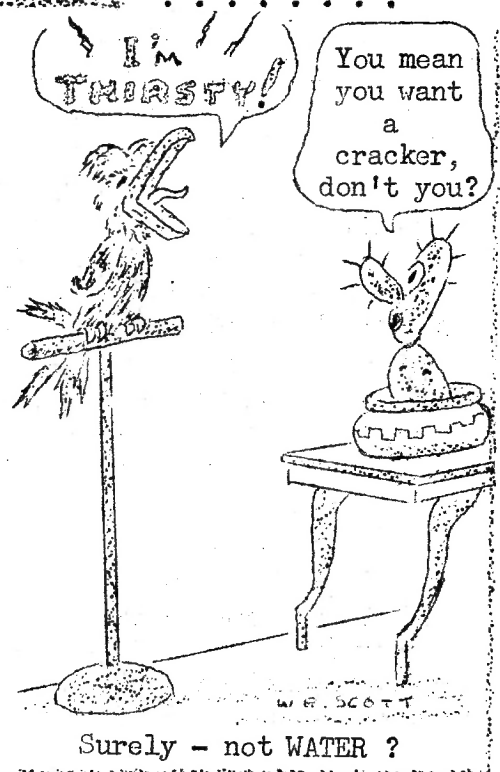
Our Editor surely eats up stuff about grafting*. He said there were so many favorable comments about my April article on "drill grafting" that I've decided to add a 'post script'.

The 'Epi' I grafted on T. spachianus by the 'drill method' are doing nicely--thank you! I've had one beautiful blossom in less than a year as compared to two or three years when starting from a cutting and asking it to "grow your own roots".

Further experimentation develops information about drill grafting. A flex drill is not necessary, an ordinary drill does the job. Size depends on the size of the central stem of the 'Epi'. Usually a 1/4" drill will do, altho a smaller one may serve. It doesn't hurt to dust all cut surfaces with powdered sulfur after grafting is completed.

Another favorable factor for drill grafting is that one doesn't have to wait until warm months to graft. If both the stock and scion are in good growth, success appears to be assured. I made two grafts in March and both are doing great. I took the precaution of setting them on a shelf in my garage window where they got afternoon sun and protection from cold night air. My garage is the nearest structure I have which resembles a greenhouse. I diversified in March. I made multiple grafts by inserting freshly skinned Zygocactus truncatus stems in several holes in a 'Spach'. Success to you - most assuredly, and 'rots of ruck'. - Steve

(Steve: You've made a 'believer' out of me, the ? in my mind has been replaced by a !)



ECHINO CEREUS .

Dr. Lee N. Phelps .

. This is a handsome plant at all times, and when it flowers it is spectacular.

The genus Echinocereus is a large one with a range of size and form that is remarkable. The genus was created by Englemann in 1848 for E. viridiflorus, a beautiful small plant with unremarkable one-inch green flowers. The name of the genus is from the Greek, meaning hedgehog cereus, probably referring to the spiny ovary of the flower. The exact relationships of the genus are unknown, but are probably derived from Cereus, under which name some of the species were originally described.

Britton and Rose related the genus to the small South American cacti, such as Echinopsis, Rebutia, etc., but this is probably only a relationship based on outward appearance.

There are several characteristic features shared by members of the genus Echinocereus that are not found together in any other genus. Most distinctive is that the branches and flower buds are formed within the body of the plant and burst through the skin of the plant at an areole. To my knowledge this characteristic is found only in a few species of Rhipsalis. Another character shared by members of the genus are green stigma lobes in the flower. Some species of other genera of cacti have green stigma lobes, but not as a generic trait. The ovary of the flower is spiny in members of this genus, a character found in other genera, but curiously enough not in Cereus. The spines are usually shed when the fruit ripens. The fruits may be practically any color, and when ripe are frequently edible. Another common name for these cacti is the strawberry cactus, referring to the flavor of the fruit.



Since I decided to specialize in this genus a couple of years ago, I have found that most of the echinocerei will grow in a variety of soils and under a variety of conditions. Most of them like heat and full sun, but a few demand shade from the hot mid-day sun. One peculiar plant in this genus, E. knippelianus, looks best when grown in partial shade, but flowers for me only when grown in full sun. Most of them do like additional fertilizer two or three times a year, and some demand additional minerals to counteract chlorosis.

Presently, I have about 75 species of this genus, with a total of about 250 plants. Some of my plants apparently have no valid species names, while there are validly named species which I do not yet have. For the United States species I use as my authority both Weniger's CACTI OF THE SOUTHWEST and Benson's THE CACTI OF ARIZONA. For the Mexican species, I use a variety of sources and am especially looking forward to Bravo's CACTI OF MEXICO, soon to be published.

Seeds of this genus have given me more problems than any other genus I have tried. Getting some species to set seed has been impossible for me, probably because two plants of the same species must cross-pollinate. Other species have consistently set seed, but I get no germination under my conditions. I have collected a few seeds in the field that likewise do not germinate. Garden collected seeds do pose a problem since cross pollination between species does occur. I have begun collecting seeds from plants in the garden that may give interesting forms no matter what they have been crossed with.

Naturally, I recommend that several species of this genus be in every collection of cacti and other succulents!

C O T Y L E D O N spp

(kot-i-le-don)

A D R O M I S C H U S spp

(ad-ro-mis -kus)

Dr. Lee N. Phelps

The two genera Cotyledon and Adromischus are members of the Crassula family. They have frequently been lumped into a single genus, Cotyledon, but they do seem to be distinct. The species of Adromischus are small plants, frequently with brightly mottled leaves and with upright flowers that are very tiny. The species of Cotyledon are larger plants with clusters of brightly colored drooping flowers.

Both genera of plants are usually kept by the gardener because of the form of the plants. The Adromischus species usually have very succulent leaves, frequently in two opposite ranks, with bright colored markings or an unusual solid color. Any given plant would be giant at about 6 inches.

The Cotyledon species have succulent leaves, but rarely markedly so as in the former genus. The leaves have remarkable form, at times, and the plants form small bushes. The leaves are frequently covered with bloom, the white powder that washes off when you water overhead.

These plants will grow in most any soil so long as they get sufficient water and plenty of sun. They are easily cared for, and new plants grow readily from a stem or leaf that is healed and lightly covered with soil - or you can leave them on top of the soil until roots are formed.- then plant.

These plants are natives of Africa and Arabia, with the Adromischus species restricted to South Africa. With the similarities in climate, it is readily understood why these genera of succulents do so well in Southern California. I do recommend species of these genera for the garden of the collector.

ITEMS OF INTEREST FROM MANY SOURCES

"STACHELPOST"

"For the 'Stachelpost' I collect all badges from all Cactus Societies from the whole world which may be illustrated in color in 'Stachelpost'. Please

let me have a badge from your Cactus and Succulent Society. In return you will have a badge of the "Deutsche Kakteen-Gesellschaft" (Cactus Society of West Germany) from me.

Karl Zopf

Karl Zopf, Postfach 250, D-72 Tuttlingen 1, West Germany

CLUB GUIDE TO MEXICO

When to go, what to see, where to stay in Mexico are covered in the new 36-page Allstate Motor Club Guide to Mexico. Information on the weather, travelling, camping, crossing the border and returning home are included, along with a motel, hotel and campground directory and much more helpful information. FREE. Write Allstate Motor Club, Northbrook, Ill. 60062

LOCUST HAS THORNS CACTUS HAS SPINES

The American tree with the longest thorns is the honey locust - Locust gleditsia. Its spikes, in clusters, may be several inches long. (Who knows which cactus has the longest spines...Ed)

JOYCE TATE - Re 'Cactus Cookbook'. . . Ye Ed came across this reference: "PEEGEE'S CACTUS RECIPES" 20 pages, by P. G. Olson (1935). Wondered if you had it.

CLUB MEMBERS PLEASE NOTE: Start thinking about your 'pot luck dish' for our July 8th meeting on the hill east of El Cajon at Bob Taylor's under the Eucalyptus trees - in the breeze - Thank you!! You've just had official notice. . . . Ed

SAN DIEGO CACTUS & SUCCULENT SOCIETY

Affiliate of the
Cactus & Succulent Society of America

'Espinass y Flores' monthly bulletin

PERMANENT ADDRESS: Room 104, Casa del Prado, Balboa Park, San Diego, Ca. 92101

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MEMBERSHIP: Yearly, single \$3.00, family \$4.00
(includes monthly bulletin 'Espinass y Flores')

GREETINGS TO NEW, AND WELCOME BACK TO RENEWAL MEMBERS:

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Street 6841 Julie Street
Ca. 92103 San Diego, Ca. 92115

ISES
QINT

QUOTE: "We received a call from the Associate Botanist at the Museum of Natural History, Helen Witham, who asked if our Society would share knowledge and enthusiasm with children of the KATE SESSIONS

ELEMENTARY SCHOOL in Pacific Beach regarding their Cactus & Succulent Garden as part of their hour-long Ecology Program. Certainly we have both knowledge and enthusiasm, so please don't be bashful, step right up and volunteer - don't think "I'm no EXPERT, I'm not an authority, let Lee or Floyd or Scotty do it!"

Calls of this nature are often received - for instance an officer of the La Jolla Garden Club asked if we had members who would give programs on our specialty. Another caller asked for someone to give a bit of background and growing tips to school children who eat lunch in the Park in what used to be our Cactus Garden. Sharing our pleasure with others is one of the more rewarding facets of belonging to our Society. Volunteers who get along well with children please come forward!
LET'S GET A TALENT BANK UNDERWAY!

The person to contact in the Pacific Beach area is Mrs. Wm. H. Thomas, 273 1388