

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

ABRIL 1972

NUMERO CUATRO

PUBLICATIONS RELATING TO CACTI AND OTHER SUCCULENTS AND SPONSORING CLUBS

- | | |
|------------------------------------|---|
| 'Cactus and Succulent Journal' | Cactus and Succulent Society of America (CSSA) Box 168, Reseda, California 91335 |
| 'Affiliate Reporter' | CSSA and Affiliated Clubs Edward S. Taylor, Southgate, Ca. 90280 |
| 'Star to Star' | Mission Press (13 Clubs including Coastal Bend C&S Soc., Corpus Christi, Texas 78408 |
| 'Cactivities' | Colorado Cactophiles Denver, Colorado 80219 |
| 'Spinal Column' | Detroit Cactus and Succulent Society Detroit, Mich. 48213 |
| 'Open Gates' | Gates Cactus & Succulent Society Riverside, Ca. 92388 |
| 'Bulletin, Epiphyllum Soc. of Am.' | Epiphyllum Society of America Monrovia, Ca. 91016 |
| 'Cactus Digest' | Henry Shaw Cactus and Succulent Society St. Louis, Mo. 63122 |
| 'Kaktos Komments' | Houston Cactus & Succulent Society Houston, Texas 77018 |
| 'Cactus Sticker' | Las Vegas Cactus and Succulent Society Las Vegas, Nevada 89101 |
| 'Cactus Chronicle' | Los Angeles Cactus & Succulent Society Los Angeles, Ca. 90026 |
| 'Spasmodic Monthly' | Mojave Desert Cactus Club Barstow, Ca. 92311 |
| 'Succulent Journal' | New Jersey Cactus & Succulent Society Englewood, New Jersey 07631 |
| 'Cactus Comments' | New York Cactus and Succulent Society New York |
| 'Cactus Chatter' | Oregon Cactus and Succulent Society Portland, Oregon 97266 |
| 'California Garden' | San Diego Floral Association Balboa Park, San Diego, Ca. 92101 |
| 'Espinas y Flores' | San Diego Cactus and Succulent Society San Diego, Ca. 92101 |
| 'Cactus Courier' | San Jose Cactus & Succulent Society San Jose, California 95124 |
| 'Cactus Capitol Chatter' | Tucson Cactus and Botanical Association Tucson, Arizona 85722 |

Aaron Forst of the Los Angeles Cactus and Succulent Society says "Any relationship between collecting cacti and botany is purely coincidental."

: FAIR PLAY :

.....

There are mixed emotions among club members on the subject of selling plants during our Saturday meetings. It has, therefore, become necessary to provide guidelines for prospective sellers.

Some members welcome the opportunity of being able to acquire desirable plants in this manner, while other members maintain that a sales program creates a commercial atmosphere which should not be a part of our social gatherings. Both philosophies have advantages as well as drawbacks.

After a great deal of deliberation during more than one of our Board of Directors meetings, it was agreed that the best solution would be in the form of a compromise. It would be impractical and ill-advised to entirely prohibit the sale of plants because of a number of reasons:

1. Hopefully, our 'green thumbers' will continue to offer rare specimens to their less fortunate fellow growers.
 2. New members will be happy to start their cacti (or succulent) collections with more common varieties offered at reasonable prices.
 3. Last, but not least, let us remember that publication of our monthly bulletin is partially subsidized, and our library fully, with funds obtained from the sale of plants being raised for the club with tender loving care by the Loylands. We are greatly indebted to them for giving so much of their time and loving care for the benefit of the entire membership.
- OUR VERY SINCERE APPRECIATION TO THE LOYLANDS!

However, due to the lack of space and limited number of tables, we must ask that individual members confine the amount of plants for sale to no more than can be contained in a plant tray. (Plant tray - 18" by 18")

Your cooperation with this policy will be appreciated!

. Augie Pfeiffer, President

WELCOME TO NEW MEMBERS -
YOU ARE AMONG FRIENDS !

(Compiled as of the date of this bulletin)

FISHER, Dr. and Mrs. Jerome K.
1116 Lorain Road
San Marino, Ca. 91108

GLADE, Mary
P. O. Box 10304
Glendale, Ca. 91209

GRIGSBY, David B.
2354 Bella Vista
Vista, Ca. 92083

GUMMARSON, Eric
P. O. Box 993
Escondido, Ca. 92025

JUSTICE, Mrs. Audrey
4840 Circle Dr.
San Diego, Ca. 92116

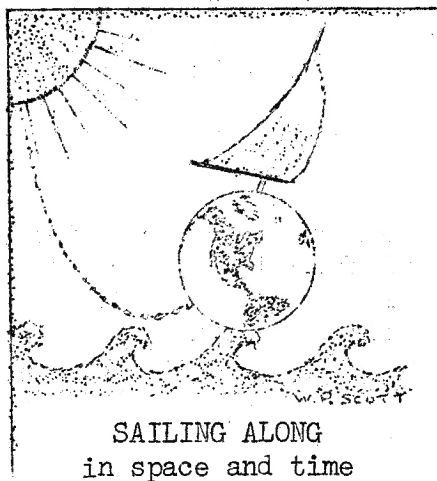
MARTIN, Virginia F.
2631 Fairgreen Ave.
Arcadia, Ca. 91006

SHAMBEAU, Virginia
8354 E. Woodlawn
San Gabriel, Ca. 91775

WEBB, Ruby
1735 E. Myran
Stockton, Ca. (please provide ZIP)

WORTH, William E.
2026 So. 6th Ave.
Arcadia, Ca. 91006

- Peter R. Sharp, Alhambra, Ca. (Vice President of
- CSSA) will be our speaker at the April 1st meeting.
- He will take us on a trip to Mexico (in absentia)
- in an informative manner and with a delightful
- British accent. Some choice plants may accompany him.



: PRECARIOUS JOURNEY :
: by Doc. R. V. Vaughan :
: :
: :

As we sail along thru space, have you ever given thought to the fact that our life here is epheremal, tenuous, uncertain. Behind our small ball of rock that we call 'home' trails a long tail of cosmic dust composed of atoms and particles of matter drifting off into space.

The 'ancients' called this phenomenon the 'false dawn'. The poets and early navigators wrote of this glowing that heralded the dawning after the darkness of night. Omar Khayyam sang of it in Persian quatrains. Not until our astronauts ventured forth into space did we realize that this was cast off material from our spinning, fast travelling Earth.

In previous articles I wrote of the oceans being less than the wax on an apple when compared to the water upon the earth's surface. If there was no land mass to interfere with the orderly motion of the flow of the tides around the earth they would be about two miles high if the moon was at the same distance from the earth as it is now. If the moon sailed off into space there would be no oceans as we know them as of now but vast pools of rotting material.

Recently the sun erupted into space a vast amount of material at the rate of six hundred miles a second. The amount is calculated at many times more than all the planets that compose our galaxy of planets. Fortunately the sun ejected this effluvia outward from the sun and not towards the earth. Had it come to us, we could have been cremated in a twinkling of an eye. This brings to mind the fact that if the sun's heat sent to us was upped by a few degrees, five or ten percent, we would be cinderized in moments and also if the sun for some reason cooled five or ten degrees we would be frozen cadavers for creatures of the future to find.

I write of future creatures for no human as we know ourselves could survive but some forms would survive as we find in the Antarctic regions that lichens and low forms of vegetable life exist as do some small insects. If we are to believe the theory of evolution, we must suppose that there will be life again and again reconstructed after each cataclysm that destroys this earth as we know it.

We know that at sometime in the past the North Pole was in India as magnetic ores all point to this fact. We know that once the Antarctic region was very tropical as the coal seams prove densely forested and well watered savannahs are now buried under earth and ice. We find in Siberia vast interments of mastodons with freshly eaten vegetation in the teeth and stomachs that did not have time to be digested before death struck quickly and froze them stiff for future ages to uncover and to find the meat palatable. We find in the dinosaur beds of Wyoming that all the fleeing creatures of that day and age were fleeing up the mountains and headed northward before being engulfed by an inundation of the sea. On Catalina Island at some time in recent history since the ice age began to retreat all the timber on the island was laid flat upon the land as though a wind from the north had vented its fury upon the land. Time and wind and sand have covered the fallen monarchs of the Channel Islands and made them pages in the book of geology.

The earth is restless. Nature never for a moment ceases to build, use and destroy and try again for some reason unknown to we humans. By far more creatures have been developed and destroyed than now live on earth. Why did nature create so many types of horses, of elephants, of dinosaurs and then consign them to oblivion and leave the few species that we have as of today?see page 4

PRECARIOUS JOURNEY

...continued

Anyone who has visited the Brea Tar Pits and looked upon the wolves, tigers, vultures, elephants, etc. of the past that dwelt on the savannahs (treeless plains) of Los Angeles must wonder at the vast changes that Nature has wrought since the ICE AGE began to retreat after its long life in the northern hemisphere down into Montana, across Europe, etc.

The more that men do research into the mystery of space and this earth, the less we know about Creation. We send men to the Moon to find the 'elemental rock' of which all creation developed and we find that all rock, all material came from the same primordial substance. The dust of Mars tells us that life is fleeting and that this earth will live its allotted time and return to the dust whence it came. The sun will cease to glow warmly. Rivers and lakes will be no more. Only silence and solitude, because it is written 'that all must be destroyed and reborn!'

Around Andromeda the vast cloud of carbon dust is coalescing and the 'spark of creation' will speak the ineffable word and out there in space the cycle of life will begin again as it has down from the first moment of creation.



..... ING



by N. R. Steveson

Our Editor asked me to write an article for 'Espinaz y Flores'. He didn't suggest a subject but inasmuch as he has had professional experience and knowledge of 'graft', I would assume he had the subject of 'graft' in mind. Graft ordinarily has political or underworld connotations or implications, but I shall write only about my own honorable and personal experiences as they relate to cacti. A recent one was different and very successful.

In June last summer, just before I was due to depart on my annual safari to Montana for the purpose of annoying the fish and enjoying the scenery, a friend gave me cuttings from two named varieties of epiphyllums. Due to shortage of time, I thought I'd take a chance on a new method of grafting. I made two cuttings from each cutting given to me. I planted two in the regular way after dipping the cut ends in sulphur and allowing them to dry for one day. The other two I grafted.

Using good old Trichocereus spachianus, a good grafting stock for many varieties, I used an extension drill to cut a hole right down the center of each 'spach' about six inches. After making sure my knife was razor sharp and surgically sterile, I whittled the skin and some flesh off each cutting for about the same distance. I jammed the denuded, tapered end of each cutting as deep as it would go into the hole of the stock. I saturated them with water and left them in a shady spot, crossed my fingers, spat over my left shoulder, and departed for Montana. I might mention my son watered them occasionally during the nearly three months we were gone.

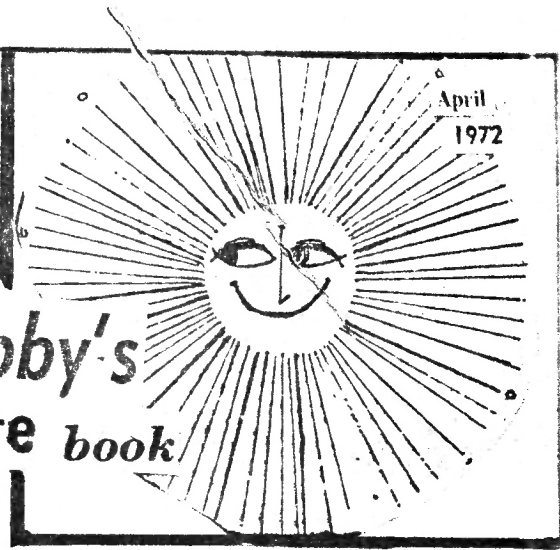
You know what? They grew...both potted and grafted epis. They were fat and happy when we got back. Early in February I noticed tiny buds on them. So with, as they say in Japan 'rots of ruck', I should have blossoms in a couple of months.

Just a word about 'flex drills'. People who have not worked on aircraft are not familiar with them. The flex drill is just an ordinary drill with a shank about 12" long. They come in the numbered series of drills. I used a No. 10 which is about 3/16" diameter. Of course size isn't critical but the hole should be large enough to accommodate the fibrous center of the 'epi' plus some of the pulpy flesh. Any hardware store that carries aviation repair tools should have flex drills.

FLASH !! FLASH !! THE LAMBS ARE COMING Edgar and Brian Lamb of England are coming to the U. S. in late May or June. We hope to meet with them, either at a regular meeting or at a dinner meeting during their visit to Southern California. April '72

Spring

April
1972



Nibby's Note book

, granted, may be a little late this year, slipping in quietly with subtle signs of swelling leaf buds on barren branches... Or announce herself to you with red tulips and Wedgewood-blue Dutch iris in the Victorian lathhouse in Balboa Park... Or does the heady fragrance of *Pittosporum undulata* (Quick, Plantsman -- a common name!)... spicily citric and all pervading nudge your awareness? Or the purity of white wisteria spilling out of lifeless tangles? Making one breathe more deeply to enjoy the delicate scent.

Perhaps this group feels the Presence when Mams open tiny satin flowers... To me, Spring was here the day the vibrant coral pompoms of Aloe striata really showed color... Branching knee-high from plump reddish rosettes, they combine a gay joyfulness of flower with subdued formality of "leaf" design ... Or was it the day the bumblebees buzzed in the elegant droop of a shower of pale Agave attenuata flowers?... or saw close at hand the bright yellow clusters of Agave shawii by the sea in Baja -- close-at-hand when you reach to test the oozing sticky sweetness... Whatever...they are all soul-expanding sights...

To see a world
in a grain of sand
And a heaven in a wild flower -
Hold infinity in the palm
of your hand,
And eternity in an hour.
William Blake



NOTE: Ruth Stanton's address
3156 Harding Street
Carlsbad, California 92008

TRADE: Nellie Kennett is willing to
TRADE two of her \$500 plants for one of
Corliss' \$1,000 crest seedlings * * * *

Working with pen-and-ink, Tony d'Atillio's beautifully executed sketch caught the self-satisfied, supercilious, sneering smirk of the camel so well that the Museum of Natural History used it for the cover of the most recent issue of their publication ENVIRONMENT SOUTHWEST

What's going on

with our spot in the sun in the Park was reported by Augie (Sand-and Soul) Pfeiffer. Augie has been most diligent pursuing our plan to garden publicly... no one could want progress more... but the powers in the Park have decisions to make far ahead of our particular goal. As we understand it, AFTER the pedestrian crossway is completed Park personnel will contour and place the basic plants of large specimens and move in the big rocks, boulder type, for background before we swarm over to fill in collections and add finishing touches... although what garden is EVER really "finished?" Speaking of the pedestrian crossover, isn't it nice that one is being provided to tiptoe to the succulents?... FOOLISH of us to have worried that it was a crossover to a parking area! * So. Continue to hang loose awaiting The Word. *

SURPRISE ANNOUNCEMENT of the Month - Would you believe ED MILLER for Exhibits Chairman? The Fair will be fast upon us again and Ed will need H * E * L * P !

ERNEST CHEW, V.I.P. at the San Diego Zoo, is looking for aloes and other large plants for the San Pasquale Wild Animal Park... We can help make the lions more at home providing these plants. Augie said to call either Mr. Chew or Jim Stalsonburg, Coordinator, at the Park Office - 236-5700.

In addition to ALOES - EUPHORBIAS - COTYLEDONS - CRASSULAS may be donated. Quote:

"We'll take your plants, large or small,
There is space to fit them all!"

EVENING TRIBUNE

San Diego, Wednesday, March 1, 1972

CITY BEAUTIFUL PLANS TREE PLANTING RITES

City Beautiful of San Diego will hold a noon luncheon and memorial tree planting ceremony Monday.

The luncheon will be at San Diego Zoo's Rondavel Room, followed by the tree planting at 1:30 on 6th Ave. between Palm and Olive Sts. in Balboa Park, location of a City Beautiful grove of Ginkgo trees.

Dedication of the tree will be made by the Rev. Dennis G. Ebel of St. Patrick's Catholic Church, in memory of Mrs. Arthur Bretz, the first woman parks and recreation commissioner in the city, and Mrs. Clifford Ray, a former member of City Beautiful.

Participating will be the Rev. Mr. Robert L. Stevens, Church of Christ Unity, invocation; VFW Auxiliary, Pacific Beach 5985, color guard; Mrs. John J. Moore, pledge of allegiance; Mrs. Raymond E. Smith, City Beautiful president, presentation of the tree to the city, and Mrs. Robert M. Nelson, park supervisor, and James Stalsonburg, park foreman, acceptance. Dr. Frank M. Lomas will give the benediction.

TAYLOR'S CACTUS GARDEN

1051 Tres Lomas Drive
El Cajon, California 92021

Telephone 444-3019

ROBIN STRATE only brought the little Mam in to be identified...It was thought at first to be M. plumosa, soft and filmy white spines setting off the numerous coral-pink blooms. A number of our experts hazarded guesses at its heritage until Robin cut further rumors off - "It may be an orphan, but I love it!" ... So did everyone else, apparently, for it was way-out winner in the Open class. She gives it tender neglect in the lath house, watering it when she's in the mood.

SIDELIGHTS on STAPELIA VARIEGATA

In the year 1624 the sailing ship "Gouda" left Holland bound for the Dutch East Indies.(now Indonesia). Among the 350 aboard was a missionary, J. van Heurn, fired with a vision of converting the islanders to Christianity. The Gouda made her way down the west coast of Africa, and on reaching the Cape put into Table Bay for fresh water. Van Heurn accompanied the passengers ashore, and made his way to Table Mountain. He was struck by the appearance of some of the strange plants growing there.

Van Heurn gathered specimens which he sent to his brother who was Professor of Medicine at the University of Leyden. He prepared careful drawings and descriptions to go with the plants. After 15 years he returned to Holland much disillusioned, where he died in 1658.

The drawings by van Heurn were passed on to Otto van Stapel who mentioned them in his edition of the botanical works of Theophrastusphrastus, published posthumously in 1644, under the name of Fritillaria crassa. With the further settlement of the Cape many plants were introduced into Holland, and we find the plant mentioned in 1687 in "Hortus Medicus Amstelodamensis". The Succulent craze had struck Holland!

This plant was known by the names Apocynum, Asclepias, Crassa and Stisseria before Linnaeus in 1753 honored van Stapel by renaming the plant Stapelia variegata.

(from a Bradenton, Florida, newspaper)

(A Stapelia by any other name can smell...)



R. CORLISS' young guest was Jose Madreno from Halisco who will be going to Midway School...he withstood grilling with pleasant poise. * Ruth Nelson held up Martha Van Ness' new book which is a Garden Guild Book Selection -- good to have it on our shelves and Martha on our rolls. * Mrs. Cotton of Escondido - did you ever fill Bob Myers' order for seed pod "bugs"? That's old business left over from many months ago. + Katherine Taylor bought a pink & blue echeveria at Desert Nursey that she talked into bearing 50 blossoms -- "Well, at LEAST 25," she giggled as she revised her extravagant estimate. * Jack Schlotte, don't forget that you've promised to do some lettering. * "Bring MORE plants for open class?" Nellie questioned vigorously as ashe hauled away a double-decked cart of candidates. * But the question of-the-month was asked by Mitch Beauchamp, arriving late but better -- Mitch stepped off the dock from his latest watch-the-whales-mate trip to Scammons Lagoon, and into our meeting and queried: "Is there a projector in the house?" One of those details to needle a Program Chairman when he doesn't... But our man Scotty lives close by and came to the rescue. Personally, I relived the trip when I was lucky enough to accompany Mitch and the Natural History members down to Magdalena Bay with Mitch as botanist. ...Now we can all envy Alice and Jim Bishop on their coming trip.

GEORGE ENGELMANN

George Engelmann was born in Frankfort-on-the-Main, Germany, in 1809. He came to the United States in 1832 and settled in St. Louis a year later. He established a flourishing medical practice with a special interest in obstetrics and was the first doctor to use obstetrical forceps in St. Louis.

Doctor Engelmann's name stands out in American science as a botanist. He made large collections of plants and sent a good many of them to Germany and Russia. He befriended Dr. Friederich Wislizenus, another noted physician with the cactus bug. Wislizenus began collecting in the Southwest and sent material from that region to Engelmann. About that time, Engelmann started his own private garden, enhanced by donations from European cactologists. Engelmann's interest in cacti and succulents began around the time the United States was engaged in war with Mexico, which must have put a crimp in his collecting.

Engelmann described over 100 species of cacti, including Saguaro (Carnegiea gigantea) in 1848, the "Organ Pipe" (Lemaireocereus thurberi) in 1854, the "Sweet Potato" (Peniocereus greggii) in 1848, the Jumping Cactus (Opuntia fulgida) in 1856, the "Pin-cushion" (Mammillaria microcarpa) in 1848, and the "Whisker Cactus" (Lophocereus schottii) in 1856. (The torch cacti were all described under *Cereus* originally and the *Coryphantha* as *Mammillaria*. Later botanists transferred the species into new genera; *Carnegiea*, *Lemaireocereus*, *Lophocereus*, *Neolloydia*, *Coryphantha*, *Epithelantha*, *Ferocactus* and *Sclerocactus*.)

Another interesting thing about Dr. George Engelmann is that he is known as St. Louis' first weatherman. Of all the citizens who have peered closely at a thermometer through the years, Engelmann came closest to making a profession of it in St. Louis. It is to him that we owe thanks for the oldest set of weather records in the upper Mississippi. Sometimes as often as eight times a day he would record his observations of the temperature. He began doing this in 1836 when he first entered practice at the corner of 2nd & Chestnut Streets. He turned over his complete set of 47 years of weather records to the St. Louis Academy of Science at the age of 75. He died in February of 1884 of a cold caught while sweeping a path through the snow to his beloved thermometer.

Bibliography: Compton's Encyclopedia
Ladislau Cutak

Thanks to Henry Shaw Cactus Society
CACTUS DIGEST (p. 2818)

St. Louis GLOBE-DEMOCRAT

Here's a GREAT spot for a one-liner or an illustration...

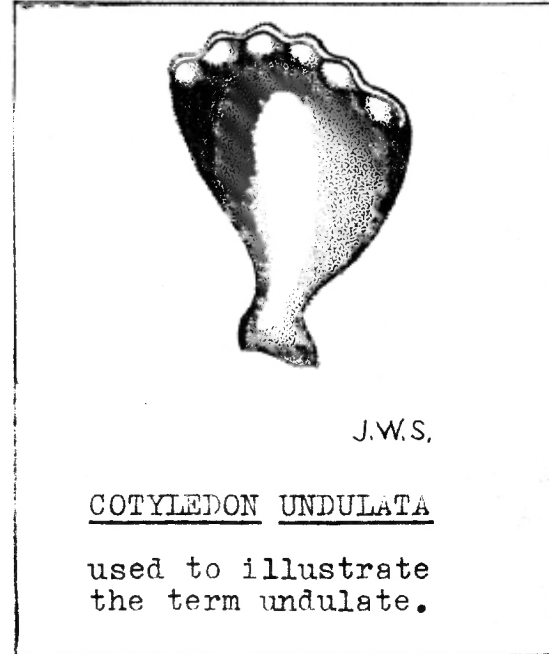
LEAVES

UNDULATE

Jack W. Schlotte

©©©

Undulate (ŭn-dū-lāt) is described as wavy; wavy-margined, with a wavy appearance or outline. *Cotyledon undulata* is one of only a few succulent plants that can be used to illustrate the term. Only the tip of the leaf, for about one and a half inches has the undulations, the sides of the leaves are straight. The plant is very attractive, owing to its heavily powdered, white leaves with the edge being pink or carmine.



J.W.S.

COTYLEDON UNDULATA

used to illustrate the term undulate.

Cotyledon undulata is in the Crassulaceae family. It is related to *Kalanchoe*, but has its flower parts in fives, whereas *Kalanchoe* has its flower parts in fours. The genus *Cotyledon* will be the Succulent-of-the-month in June, and contains over thirty species. The flowers of *Cotyledon undulata* are bell-shaped, orange with a few red stripes. The flowers appear on a graceful stalk in a pendent umbel.

Cotyledons are all native to South Africa, Abyssinia, and Southern Arabia. There are two types of Cotyledons: those with persistent leaves, and those which shed their leaves in the summer resting period, like *C. cacalioides*. The deciduous types are rather hard to propagate and are rarely grown. The "evergreen" Cotyledons are the most common and easy to grow from leaf and stem cuttings in spring. The evergreen Cotyledons have their growing season in summer, the deciduous Cotyledons have theirs in winter.

The leaves are arranged, opposing, two to a node. The next pair is at a right angle. The internode is only a quarter of an inch, at the maximum. The stem is woody, a little over a quarter inch in diameter. It may be covered with the white dust just like the leaves.

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PLANTS-OF-THE-MONTH - - April .

- Cactus - *Neoporteria* spp. .
- Succulent - *Haworthia* spp. .
- Members are asked to bring *Neoporteria* spp. and *Haworthia* spp. to the April meeting for 1) competition - the best in each class permits the owner to select a plant from the exchange table, and 2) the naming of unidentified plants. Don't tell us you know the names of all your plants - you could have some with no names or names could be incorrect. That's what our 'education program' is all about. Let's use it!

'CACTOPLEASURE' : JOIN OUR CARAVAN on April 15th - Saturday . .
 for a day :
 April Activity! : Many San Diego C & S members who visited Floyd Gable's garden
 Tony D'Attilio : in April '71 have expressed a keen interest and desire to
 : repeat the visit this year. This is your opportunity.

Our plan is to arrive at (rendezvous) at Gable Gardens about 10 a.m. on that day. There's more than you'll ever be able to see and comprehend. After a reasonable period of time - after you've looked and admired and wondered how any one could possibly do it, the caravan will move on to the next stop - Bob and Suzanne Taylors' Garden in El Cajon. (Note map, page 6, NIBBY'S NOTEBOOK). The 'old road' to the Taylor's is gone, it went where all good roads go - bulldozed.

. . . . and HOW do you get to Floyd Gable's Garden, it's really very simple:
 EAST on Mission Gorge Road to Carlton Hills Blvd. (Signal light)
 NORTH on Carlton Hills Blvd. to Halbers Blvd. (just across, north of the San Diego River, looke more like a 'dry wash'.)
 WEST on Halberns Blvd. to INWOOD DRIVE.
 NORTH on Inwood Drive to Indian Wells Court - - and you're there, Gable's.

BRING YOUR LUNCH (this is not pot luck) a sandwich, Kentucky fried chicken, salami, pork and beans, hot dog (suggestions). There's plenty of space at the Taylors for a relaxing lunch. Oh yes, bring your coffee or punch (or coke), no refreshments served.

After lunch you may stroll, examine, purchase some of the extraordinary fine cactus, etc that are in the Taylor's large collection.

REMEMBER when you're visiting a cactus garden, the rule is to always move forward, never back up !

.
 PLANT-OF-THE-MONTH :
 . . succulent . . : NAME - Named for Adrian Hardy Haworth, 1768-1835 England
 H-A-W-O-R-T-H-I-A : SPECIES - Haworth listed 24, others say 70 to 100 . . .
 : HABITAT - South Africa, Cape Providence, Cape of Good Hope

FAMILY - Liliaceae - it has several 'cousins' for example Aloe, Yucca, Dracena, Sanseveria, Gasteria, Tulip, Apicra and so on . .
 CHARACTERISTICS - Short stems, succulent leaves, usually small, crowded .
 FLOWERS - Small, usually white, erect or spreading, bilabiate (two-lipped) of less interest than the plant leaves . .
 LEAVES - Haworthia leaves are perhaps more appealing than the flowers because of the tubercles and tubercle patterns, very interesting . .
 SUN OR SHADE - Mostly shade loving. They hide in the undergrowth in habitat.
 DRAINAGE - They appreciate good drainage, porous soil . .
 CARE - If potted it is better to moisten (water) plants from below, that is put the pot in a pan of water and let the water seep upward thru the soil.
 GOOD WINDOW PLANTS - They are small, easy to grow, and appealing.
 BEST COLLECTION - Is in Pasadena, California, it belongs to J. R. Brown
 SPECIAL - H. truncata is much sought after, it is the 'window plant' so named because the leaves terminate in a flat 'window' which is translucent (pellucid) to admit light to accomplish life processes for the plant. It draws itself into the ground during dry seasons, leaving the windows exposed.
 A CHALLENGE - Bring one or more Haworthias to the April meeting and see if you can fool the experts - or if you prefer, bring 100 species and astound them.

. . . . Pardon me . . . I forgot to write about NEOPORTERIAS. . . and Doc Phelps sends his apologies for himself and ME, he was very, V E R Y busy....E. Y. Flores

* * * * * O-B-I-S-P-O G-R-A-M * * * * *

Rancho Bernardo
April 1972

JOYCE TATE:

Dear Joyce: Had you ever thought about a 'humor section' for the 'Cactus Cook Book'?

Billy 'The Kid' Bishop says his next door neighbor, John Kasten, upon noting the Bishops' interest in cacti, asked:

"When both husband and wife are interested in cacti, do you call them a 'prickly pair'?"

. . . Ed

* * * * *

Prickly Problem. It is possible to live with doubt. I have just finished a third agonizing year of not knowing if my cactus plant is dead or alive.
— Mary Ann Serenda in "Line o' Type," Chicago Tribune

POP . . POP . . POP
SNAIL - you're DEAD

Bubblegum snapping is the fad at the San Diego Zoo these days, but the bubblegum poppers aren't people, they are snails, caterpillars, slugs and mites.

The Zoo sprays a bubble gum substance on its foliage, insects chomp down on the leaves, and after several bites, their mouths gum up. The pest is prevented from eating, eventually dehydrates and dies.

"Ecologically, it is excellent because it controls the insects without being poisonous," said Ernest Chew, horticulturist for the Zoo.

The substance is harmless to other animals, he said. The nontoxic "gum" is made of Polyisobutylene — the same base of bubble gum. In bubble gum, the substance has been processed into a solid gum. In the pesticide, it is a liquid.

Spraying the gummy substance at the Zoo started a year ago in goat canyon because lungworm larva, carried in snails, were infecting and killing sheep.

Today, it is used throughout the Zoo with 100 per cent efficiency.

The substance is clear and lasts the leaf-life, Chew said. Foliage needs to be resprayed only when new leaves appear.

Farmers bugged by air pollution

Air pollution, the current concern of many citizens, is always considered to be a problem of the future. But to many farmers in California, the problem is facing them now. Last year, California producers lost approximately \$25 million due to pollution, largely in the Los Angeles Basin area.

And, according to California Farm Bureau grape experts, affected growers in some areas of the state have suffered as much as a 50% reduction in grape yields due to heavy smog damage.

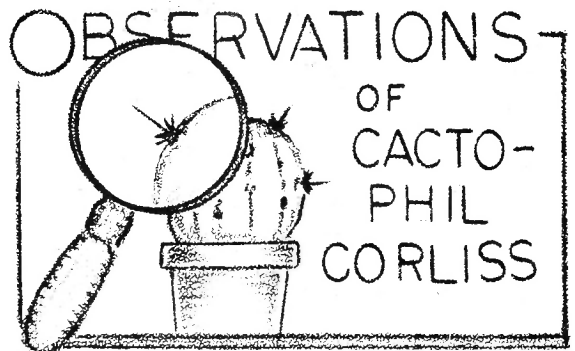
. . . BAJA TRAVEL GUIDE . . .

SUNSET BOOKS has released a new travel guide to Baja California, Mexico's wild and sparsely inhabited peninsula. Although parts of Baja California have yet to be mapped, the 80-page booklet gives considerable detail. The area's three regions are well covered and there are special features on whale watching at Scammon Lagoon, candymaking in Todos Santos, and bullfighting. Numerous illustrations are included along with maps, border regulations, notes on flowering desert plants, and hunting, fishing, and camping information. The publication may be ordered for \$1.95 from Lane Magazine & Book Co., Willow Road at Middlefield Road, Menlo Park, Calif. 94025.

Maria, perdón por favor. Un lección en inglés. Inglés - he ees comico — 'a fat chance and a slim chance are the same thing'.

Presidential diplomacy - Augie: "My decision is 'maybe' and that's final."

April, 1972..Big News! I have discovered the source of the scarid flies which in the past two years have wrecked such grievous damage to my cactus seedlings! Despite the use of Terra-Chlor in the planting mix and frequent spraying with insecticides they have constantly re-
curred in the seedling pans. Jose, the student from Mexico who is now helping me in the garden noticed the scarid flies were present in the leaf mold as we poured it from sacks to make up the planting mixes! It has been my custom to sterilize (by baking in the oven) the



mixes for planting seeds but I had not done this (a job for Hercules) with the regular potting soils into which goes a large amount of leaf mold. As a result, the scarid flies spread to the seedling pans as soon as they are uncovered - with devastating results. From now on, I hope to employ Floyd Gable's in-a-plastic-bag method of raising seedlings, keeping them covered until the seedlings are large enough to be immune to damage from the flies.

In case you don't know what scarid flies look like, they are blackish flies, smaller even than fruit flies. They can fly but they usually hop about on the soil surface, having fly sex and laying eggs which quickly hatch into the larvae which eat the seedlings.. I proved to myself how difficult it was to control the flies by keeping one pan covered constantly with glass. Whenever I removed the glass and saw flies on the surface I killed them with RAID or similar spray. In a few days the flies were again present. Weeks of such treatment never eliminated the flies, so I believe that very soon after the flies hatch they are able to lay a new supply of eggs.

While on the subject of insect pests let me urge you to treat your garden at regular intervals with Cygon-2E. With a large collection you can hardly expect to avoid trouble from mealy bugs - I have seen them in many of the finest cactus collections throughout the world. It is generally believed that mealy bugs are spread and nursed by ants, as are aphids. However, I have recently found mealy bugs on cactus plants on the shelves outside my bedroom balcony - and I have never seen there an ant. Mealy bugs may of course come with plants acquired from commercial sources or from the wild. I am sure that those of you who have collected plants in habitat have been astounded at times by the heavy infestations of mealy bugs. I think it is very important to use chlordane liberally whenever you see ants near your collection, and to drench the plants and soil at least two or three times a year with Cygon.

Don't underestimate the harm snails can do to your cactus, either. Pellets and other metaldehyd preparations do not vanquish snails spectacularly, but frequent applications are well worth the trouble and expense. Placing beer in saucers will result in inebriated but not dead snails - unless the beer is accompanied by metaldehyde or other agent, such as an heavy boot.

Next month I will give you my current list of recommended sources of cactus plants. Emphasis must be on rarer plants for the collector, as the beginner can find adequate material by asking for suggested sources at most garden nurseries.

WHOA!! STOP THE PRESS!! PLEASE STAND BY A MOMENT!! FLASH . . .FLASH . . .FLASH !!

I've just learned the SAN DIEGO ZOO is using 'bubble gum' to control snails which harbor parasites harmful to animals. And that's us!!

Excuse us please Mr. Wrigley and Mr. Dentyne....we're very serious!! We don't mean to eschew either/or any of your products. The bubble gum we're talking about is available at Walter Andersen's Nursery, 3642 Enterprise Street, San Diego. PAC

RICHARD L. RUSSELL'S
CACTUS COLLECTION
 BEING OFFERED

Richard L. Russell's fabulous collection of cacti: 1 - Fraileas, 2 - Gymnocalyciums, 3 - Lobivias, 4 - Mammillarias, 5 - Parodias and 6 - Rebutias will soon be available to interested persons.

The collection which includes several hundred individual plants is one of the best cared for and representative cactus collections to be found in the States - truly a collector's dream. Most are individual species, many uncommon or rare, altho there are some duplicates.

Russell has been a collector, student and writer for thirty-plus years and his collection represents genera and species from all sources. It is his wish that they find good homes or get into the hands of persons who know how to care for them.

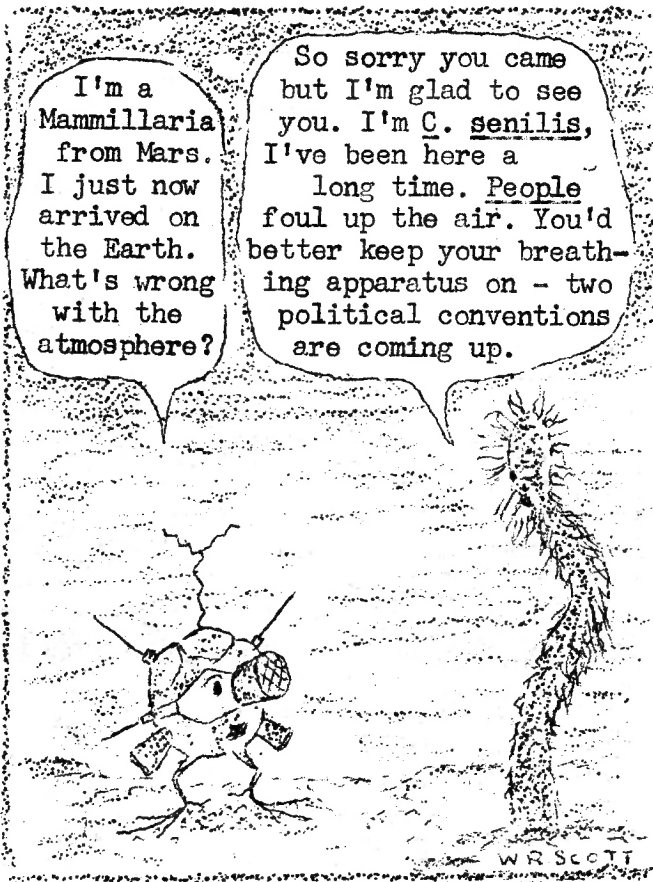
He would prefer to handle sales by appointment to groups of six to twelve persons. Large or bus size groups could not be accommodated on the private grounds. Arrangements may be made by phone in advance by calling (area 714) 454 7658. Clubs or groups are invited to inquire.

Members of the San Diego Club who have information about the collection may be contacted for additional details. They are: William Bishop, Anthony D'Attilio, Loyal Bibbey, Floyd Gable, Richard Latimer, Oliver Loyland, Dr. Leroy Phelps or the Editor.

Ed's note: Russell's collection does not include a 'Mam from Mars' altho if he did have one it would be able to remove its breathing apparatus.

Ed and Betty Gay
 Tarzana ---

San Diego
 March '72



Thank you for sending the H. KRAINZ file of plant identification sheets. Board members down this way have had an opportunity to study it and in the meantime a 24-hour security guard has been protecting it. It will come home on April 8th in good condition.

We couldn't translate some of the words but so far as the photos and line-drawings are concerned, words were superfluous---W-O-W !! Too, we like some of the simplified spelling where letters are saved, like for example 'literatur', just to cite one example. And speaking of 'saving' and being Scotch, postage on this letter to you will be paid by the Club....thank you Club.

Washougal, Wash., 3-7-72

Espinas y Flores
 Dear Ed

I enjoy your monthly bulletin very much and find it the next best thing to being able to attend the meetings of the Society.

Bulletins during the past year have had much cultural and explanatory material about cacti. Please keep it up.

Martha K. Ford (member SD C&S Soc)

....Thank you Martha for your support....Ed. . . . Rt. 2, Box 586, Washougal---98671

LETTER TO THE EDITOR:

(Answered by letter)

"Karl Zöpf

Postfach 250
D 72 Tuttlingen 1
West Germany

Dear Mr. Scott,

Please, be so kind to send me free of charge a copy of the Journal of the San Diego Cactus and Succulent Society, 'Espinas y Flores'.

Also I am very interested to know the subscription. I need the exact information for the list with the title

DIE KAKTEEN- UND SUKKULENTEN-JOURNALE,
Bulletins, Newsletters, sowie ähnliche
Publikationen der ganzen Welt,

appeared in the german Cactus Journal, "STACHELPOST" (Editor: Mr. Günter Kilian, Wallufer Str. 30 2/10, D-6502 Mainz-Kostheim, West Germany).

Have the following societies own journals and can you tell me the addresses?:

"The Natal Cactus and Succulent Club",
"The Hawaii Cactus and Succulent Society",
"The penang Cactus Society" in Malaya.

Awaiting the pleasure your news and many thanks in advance for you, dear Mr. Scott

With kind regards, Your *Karl Zöpf*

.....
The Editor is stopped! Does any reader know of, has any reader heard of -
'NATAL C & S C', 'HAWAII C & S S', 'PENANG C S' ??
Please communicate.
.....

OUR LIBRARIAN and our BY-LAWS remind us that "members are entitled to checkout privileges and a charge of 25¢ per month is made for books, journals, etc held for more than a month.

RECENT LIBRARY ACQUISITIONS --- COURTESY OF:

PLESNICH, Prof. Ferdinand (Ceskoslavensko USSR)
"FREUD MIT KAKTEEN" (Happiness with cactus) by Walter Haage 1967, 268 pages,
46 individual color pictures, in German.

MILLER, O. Ed (San Diego)

"YEARBOOK OF THE CALIFORNIA RARE FRUIT GROWERS ASSOCIATION"

LIBRARY PURCHASE

"CACTUS AND SUCCULENTS, INDOORS AND OUTDOORS" by member Martha Van Ness,
Pacifica, Ca. 112 pages, hard bound, drawings by Norman J. Stein, \$8.25
PFEIFFER, Pres. Augie "EXOTIC PLANT MANUAL" by Alfred Byrd Graf, 4200 illustrations,
common name and generic name indexes, 840 pages, \$27.50
.....

THE REGALEMENT COMMITTEE (Rose, Pat and Elvira) and all members present on March 4 say 'thank you' to the following contributors on that day: Edna HOPPER, Harriett SOPP, Hazel SCOTT, Mabel GREENWOOD, 'Doc' VAUGHAN, and Evelyn CHATHAM.
.....

The PALOMAR CACTUS & SUCCULENT SOCIETY is contemplating a bus trip to Rancho Santa Ana Botanic Garden and Huntington Gardens in May. Full information will become available as the trip develops. Interested persons contact Helen Hegyi. San Diego Club members are invited.
.....

HAIRY HAZARD: Did those of you in the audience detect the moments of suspense at the CSSA Special Activity on February 12th while bearded Pres. Joe Singer of the Los Angeles Society blew out candle flames on their 37th Birthday Cake?

THE EDIBLE FRUITED CACTI

. . . by Helen Hegyi . . .

(part 2)

Since 1946 Mr. and Mrs. Dan Martinez of Pala, California, have had a thriving business raising opuntias for edible pads known as 'nopal' or 'nopalitos'. With production increasing annually, in 1969 they shipped 375 tons to the cannery of La Victoria Foods, Inc., in Rosemead, California. There they were immersed in hot water to loosen the skin for easy removal. After peeling the pads are cut into half inch cubes, bottled in salt water and used as a vegetable. They are labeled 'Nopalitos Tiernos' which means 'little pads' and 'young' or 'tender'. A newer and smaller planting in Etiwanda, California, includes opuntias for edible pads.

A delightful episode occurred at the September 1971 meeting of the Palomar Cactus and Succulent Society when one member, Mr. C. F. Harbison, retired entomologist from the San Diego Natural History Museum since 1969 provided a unique eating experience. He brought a large basket of Ficus-indica fruit washed and safe for eating. He patiently removed the glochids the previous evening by rubbing the surfaces with the edge of a spoon under water in three successive water baths. After the third bath he felt the fruit surfaces to be sure all glochids had been removed. Mr. Harbison handled the fruit with bare hands, a practice not recommended for an average individual which should handle the fruit with tongs.

The Ficus-indica fruits were truly a taste treat, particular since he instructed us to eat the skin as well as the pulp. The skin is sweeter and of particular nutritional value. He was right! They were delicious!

At the same meeting another member, Mr. Anthony D'Attilio, eminent science-illustrator and malacologist of Italian parentage told us how reluctant his parents were to believe him when he explained the fruit was of American origin. The Opuntia is so firmly entrenched in the Mediterranean area it is considered native and is greatly enjoyed by the people. The fruit is known by its latin name - 'Ficus-indica'.

Another method of processing is to remove fruits from plants with tongs, place the fruit on a flat surface, hold it with a fork and slice off the top and bottom. It is then slit top to bottom and the pulp may be separated from the skin with a knife with care being used at all times not to tangle with the glochids.

Jelly made from O. megacantha fruit, also known as O. ficus-indica, is a beautiful straw-yellow color while jelly from the red fruit (desert type) is an attractive red color. Both taste about the same.

On February 22, 1942, an article appeared in the Los Angeles Times titled, 'Sugar from Cactus'. W. D. Hoppie, Los Angeles consulting chemist had developed a substitute for war-shortage sugar. Mr. Hoppie reported he could get an ounce of pure sugar from a pound of cactus juice. It appeared to him there was an unlimited supply of cacti growing in the West from which thousands of tons of sugar could be obtained. Sugar was to be made from the juice of the Prickly Pear*. (*Author's note: It is presumed the sugar was made from the juice of the pear fruit, not the leaves.)

NUTRITIONAL ANALYSES OF PRICKLY PEARS FROM 'THE CACTUS COOK BOOK', Joyce Tate, 1971.

Fox and Goldberg, 1944:

| | |
|-----------------------------|-------------|
| Average weight per fruit | 48.2g |
| Peel per fruit | 29.4% |
| Edible pulp per fruit | 70.6% |
| Vitamin C content per fruit | 15.3mg/100g |
| Refractometer reading | 11.6 |

Wolff (1) High nutritive fruit value:

| | |
|--------------------|--------|
| Dry substance | 21.60% |
| Ligneous matter | 3.70% |
| Proteid substances | .59% |
| Fatty bodies | 1.80% |
| Sugar | 14.00% |

P. J. Quin - Africa Foods and Feeding Habits of the Pedi:

| | | | | | |
|---------------|-------|--------------|-------|------------|-----------|
| Water | 80.8% | Carbohydrate | 13.1% | Calcium | 26mg/100g |
| Crude protein | 1.0% | Fibre | 4.2% | Iron | 0.3/100g |
| Ether extract | 0.6% | | | Phosphorus | 29.0/100g |
| | | | | Vitamin C | 15.0/100g |

THE EDIBLE FRUITED CACTI--continued:

Iopales, the young Opuntia pads, contain small amounts of potassium, calcium and phosphorus and Vitamins A and C. Three and one-half raw ounces equals 42 calories.

Following are a few cactus genera whose plants produce edible fruits. Fruits of these plants are mostly smooth-skinned and have few if any glochids. They should be harvested, in most cases, just before they split open. Some I have eaten required cutting in half. I ate the delicious granular sherbet-like pulp with a spoon.

The following plants grow in Southern California but some require frost-free areas: * - indicates hardy to light frost in Southern California

** - indicates tender tropicals which do not take frost

No asterik indicates genera usually grown out-of-doors exposed in So. Cal.

THE COLUMNAR CACTI range from columns often fifty feet in height to impenetrable shrubby thickets which may be smothered in flowers.

CEREUS: The name 'cereus' is derived from the Latin CERA (wax or torch) in allusion to the torch-like candelabra shape of the species. Areoles bear spines but no glochids as in the genus Opuntia.

CEREUS PERUVIANUS: Tall growing with round reddish-colored fruit having black seeds in white pulp, with a high sugar content and a slightly acid flavor. Seeds are rich in fats.

CARNEGIA GIGANTEA (CEREUS GIGANTEUS) the well-known 'saguaro' of Arizona, huge and tree-like. The red, sweet fruits are egg-shaped with black seeds in bright red pulp.

LEMAIREOCEREUS: This is one of the most important genera of the Cereus group. Some, if not all species, are of great economic value. Some are widely planted in the tropics for delicious fruits. There are 13 (1) species, some 8 are in cultivation.

*LEMAIREOCEREUS THURBERI - (pitaya dulce) fruits are borne near the tips of the tall, thick stems. They ripen in midsummer and may be as large as a tennis ball.

*PACHYCEREUS PRINGLEI - the fruit is used for a refreshing drink, the flavor being similar to a lime.

VINING OR HANGING CACTI are slender-stemmed, round or three or four-angled.

*HYLOCEREUS UNDATUS, the best known of the night-blooming cerei and the one most cultivated. Because of the abundance of fruits it is cultivated on a large scale for commercial purposes in the state of Jalisco, Mexico, where it is called 'pitahaya'. It has extremely large flowers and the fruit is oblong, four inches or more in diameter, and contains numerous black seeds embedded in a soft, white, juicy edible pulp. It is at first green, then bright red and covered with large foliaceous (leafy) scales but it is nearly smooth when mature. Other popular names are 'pitahaya orejona', 'tasajo', 'junco tapatio', 'zacomb' and 'reina de la noche'.

*SELENICEREUS HAMATUS, also night blooming with edible fruit.

*HELIOCEREUS SPECIOSUS has delicious fruit, rather like Chinese gooseberries or Kiwi fruit (Actinidia chinensis).

*PENIOCEREUS GREGGI. The juicy pulp has a high sugar content.

*MACHAEROCEREUS GUMMOSUS -- (pitaya agria) 'creeping devil' a low-sprawling viciously spiny cactus. Its fruit matures in September and October, although occasional off-season fruits may be found throughout the winter. Many prefer this slightly acid, refreshing fruit to the sweeter 'pitaya dulce' Lemaireocereus thurberi mentioned above.

**HARRISIA. Some of these produce edible fruits.

*EPIPHYLLUM, the 'orchid cactus' are pendant or sprawling type growth and most of them produce edible fruit. In California they require hand pollination to set fruit.

SAN DIEGO CACTUS & SUCCULENT SOCIETY

'Espinasy Flores' monthly bulletin

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

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MEMBERSHIP: Yearly, single \$3.00, family \$4.00, includes bulletin 'Espinasy Flores'

A MATTER OF MILEAGE

'Modern freeways' Had you ever thought of how much time, gas and mileage is involved on 'off ramps' when you're driving between points?
-- R A M P A G E --

'Espinasy Flores' when fresh off the press, labeled and stamped, is delivered to the central Post Office Collection Station on Ruffin Road to expedite delivery. It helps considerably for third class mail which usually delivered the following day in San Diego County post offices.

The trip from the 'E & F' mailing room (pardon 'garage') is exactly 8 miles. The return trip between the exact same points is 8.6 miles. One off ramp on Hiway 163 and Clairemont Mesa Blvd. involves the difference of .6 miles on the return trip. Looking at it from a percentage viewpoint, 'RAMPAGE' (one only) involves 7 1/2% of the trip.

DISHES --- 'CACTUS MOTIF'

Where are you? Rosemead, Ca., 92388
Speak up! ! Speak up! ! "Dear Editor. March 1972

The Cactus and Succulent Society of America is in need of a set of dishes (on a loan basis that is) with a 'Cactus Motif' as the design. It's for a program to be presented for the Garden Clubs of America Convention in Los Angeles on May 8th, 1972.

A 4-place setting would be preferable but a 2-place setting would suffice. The program will be 'The Cactus Cook Book--Illustrated'.

Anyone who has, or knows of, or who can loan such a set of dishes, please contact by phone or letter.....

Joyce L. Tate
11845 Hubbard Street
Sunnymead, Ca. 92388

The Ed is curious---

Does anyone know where 'Cactus motif' dishes are available, made or sold? Would you feel ill at ease or uncomfortable at a dinner at which the setting was a cactus motif, even tho you knew the spines were glazed onto the salad plate and they couldn't possibly get mixed in with the salad?

Julianne says: "Don't ask what the Club can do for you - go out into your garden and have a nice talk with your plants."