ANNA B. NICKELS
PIONEER TEXAS CACTOPHILE

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Mrs. Anna B. Nickels of Laredo, Texas was a remarkable pioneer cactophile. This industrious and charming woman, one of the few notable women collectors, was engaged in collecting cacti and other rare plants for over 25 years prior to the turn of the century. She amassed one of the largest private collections of her time, had her own nursery, issued illustrated catalogs and wrote articles for contemporary periodicals. She corresponded with and sent specimens of cacti and succulents to some notable botanists of the time and at least three plants were named in her honor. Yet today she is virtually unknown to collectors and few are familiar with her publications.

Very little biographical data on Mrs. Nickels is available and details of her personal life remain obscure. She is not mentioned in books on botanists and plant hunters. Geiser's Early Texas Horticulture and Horticulturists does not mention her. Neither the Barker Texas History Center at Austin nor the Biology Library at the University of Texas have information on her. There is no death certificate for her in the index at the State Library. There are no references pertaining to her at the Laredo public or college libraries. Geiser's Early Texas Horticulture and Horticulturists does not mention her. Neither the Barker Texas History Center at Austin nor the Biology Library at the University of Texas have information on her. There is no death certificate for her in the index at the State Library. There are no references pertaining to her at the Laredo public or college libraries. However, a card in Barnhart's Biographical Notes Upon Botanists in the New York Botanical Garden gives this information: "Nickels, Mrs. Anna Buck (i.e. nee Buck?), Born (?), Married (?), Dealer in cacti, at Laredo, Texas, Coll. (fide Millsp. in litt.) in Mexico '93-95, Texas, '93. Exhib. living cacti at World's Columb. Expos., Chicago, 1893."

Mrs. Nickels apparently began collecting cacti about 1870. In the identical introduction to two of her known catalogues, undated but probably published about 1890 and 1894, she wrote: "For over 25 years I have been engaged in collecting the Cactaceae and other rare southern plants from those parts of Mexico little known to any plant-lovers except professional botanists."
"The weary weeks, months and years spent in crossing vast arid wastes, climbing almost inaccessible mountains, and exploring dense forest jungles, in Saltillo, Monterey, Villah- dama, Lampazos, San Luis Potosi and Tampico have not been without their reward, for they have been the means of forming one of the most remarkable collections of rare plants ever brought to the United States. And since the completion of the great railway system to the Mexican Republic, I have perfected arrangements whereby I am able to supply at reasonable rates many rare species which have hitherto been found only in a few of the large botanical gardens of Europe.

"In my own garden at Laredo I keep on hand, ready for delivery, several thousand plants of the better known and more popular species, and am prepared to collect for the American and European trade, in large or small quantities, almost any cactus found in Mexico."

In 1894 Mrs. Nickels found a form of Agave victoriae-reginae on a collecting trip in the state of Nuevo Leon, Mexico. It was described and named Agave nickelsii in her honor by R. Roland-Gosselin in Revue Horticole in 1895. However, Roland-Gosselin's name was unacceptable because it had not been properly described. Ultimately this beautiful plant was designated as Agave victoriae-reginae forma nickelsii by William Trelease in 1920.

The Baltimore Cactus Journal (1(7):53-54) for January 1895 carried Mrs. Nickels' account of finding the new agave in the article, "Some of the Experiences of a Cacti (sic) Collector". The following narrative of this venture is in her own words. However, names of species in this and all of her other papers quoted in this article have been updated according to the classification system of Britton and Rose to make them more meaningful.

"On my last trip into Mexico collecting cacti, I stopped at a small station on the railway and hired from one of the natives after much difficulty, three burros (donkeys) with pack-saddles, and a man to take care of them, and another to do the heavy work.

"We started from the station at five o'clock in the morning, each one of us mounted on a donkey, arriving at the base of a large mountain range at about half past eight o'clock, a distance of ten miles.

"We dismounted and started on foot to see what could be found. The Mexicans brought me samples of different cacti and I started them collecting the species I desired, such as Mammillaria pottsii, Coryphantha pectinata, Euphorbia micromeris, Echinocactus erectocentrus, Hamatocactus setispinus, and Echinocactus horizonthalonius, these being the species brought to me. After instructing them to collect only perfect plants of each of the different kinds, I went up to the mountains prospecting for new ones.

"I had climbed to a great height without finding anything new, when all of a sudden, I saw to one side on a slope some plants which seemed to me to be Echinocactus erectocentrus. On closer inspection I noticed that they grew larger in diameter, but not so tall, also that they had one or several long, yellow center spines which protruded beyond the regular silver-white spines. This as I saw at once was entirely new to me and I thought I had secured a new mammillaria. Later I learned this to be Echinocactus (Thelocactus) macdowellii.

"After finding this I still continued climbing for a long time and had nearly reached the summit of the mountain, and was beginning to feel very much fatigued and discouraged, when I found what amply repaid me for my trouble in the form of a new agave, and although I have not been able to have it named, yet, I think it will prove a far more desirable plant than Agave victoriae-reginae having wider and more distinct markings, the underside of the leaf being crossed and recrossed by the broad white lines making a beautiful contrast. It is also different from A. victoriae-reginae in that the spines are very black and the center spine with the three corner or edge spines do not come up separately but are all connected and form one solid base, whereas A. victoriae-reginae has a white base from which the light brown spines protrude.

"It began to get late in the afternoon by this time, I called the men and we collected about 100 plants of this, to me, new and distinct agave. After this the plants were packed in bags and baskets and loaded on the backs of the donkeys. We started back to the station on foot, there being no chance to ride, as the animals were well loaded with cacti; the agaves being tied on top of the loads to prevent the spines from being broken.

"Shortly after starting on our return it commenced to rain, keeping up, and as there was no shelter, we plodded along in the rain and mud for nearly eight miles, arriving at the station about eight o'clock at night, soaking wet and muddy from head to foot, nearly chilled through with cold, and oh, so weary!

"Yet I would have undergone the same work..."
and discomfort over again to have procured the agave alone, not to count the many other beautiful plants I secured."

A brief report in the *Baltimore Cactus Journal* (1(11):115, May 1895) noted that "Mrs. Nickels has been very busy and both she and her son have been collecting. Her new agave which resembles *A. victoriae-reginae*, has been photographed and may be named *A. nickelsii*. She has five or six new agaves, which will be mentioned later, as well as other plants. She has been especially successful in finding fine specimens of *A. scabra*, *A. xylonacantha* and *A. victoriae-reginae*.

*A. nickelsii* was discussed and illustrated in the anonymous article, "Some New and Very Pretty Plants" in the *Baltimore Cactus Journal* (1(12):133) for June 1895. It is as follows: "Although our friend 'Carp' has given an excellent description of this new agave, no one can imagine the beauty of it—he must see it. The writer was presented with a handsome specimen by Mrs. Nickels, who found the plant, and in whose honor it was named, and placing by the side a *Agave victoriae-reginae*, which it resembles in many respects, is by far the prettiest of any of this family. The leaves are much stouter than on *A. victoriae-reginae*, the ends of which are dark brown, ornamented by a long, sharp, black point. The markings on the back of the leaf are broad, and every leaf is marked alike. The illustration is taken from a plant 16 inches in diameter. Mrs. Nickels, whose advertisement is found in another column, can furnish this agave at various prices, according to size of plant, and anyone wishing the beauty of beauties in the agave line should procure one."

In 1900 the Mexican Government sent Mrs. Nickels' plants, including *Agave nickelsii*, for a display at the Paris Exposition. When it closed, the plants were distributed to various botanical gardens and nurseries, including the nursery of Messrs. Nabbonnand of Golfe-Juan. It was from this nursery that Alvin Berger received *Agave nickelsii* in 1903 and named it *A. victoriae-reginae* var. *laxior*. However, he later concluded it was more than a variety and named it *A. Ferdinandi-regis* (*Die Agaven*, page 90, 1915), in honor of his friend and neighbor, the king of Bulgaria. He conceded that *A. nickelsii* might be identical with his new plant.

An article, "A Texas Cactus Garden," in the *Baltimore Cactus Journal* (1(9):83) in March 1895 undoubtedly was authored by Mrs. Nickels. It is signed merely Acacia, Texas which likely is a misprint for Arcadia (the name of Mrs. Nickels' home and garden in Laredo) as there is no post office or town by the name of Acacia in Texas. In addition, the article mentions *Cereus nickelsii* (Monatsschrift für Kakteenkunde 20:27, 1910) which was named for her and was one of her favorite plants. She wrote about this species in two other articles and it seems reasonable that only she would have mentioned it. The article is as follows: "I desire to give the readers of the Journal an idea of how my cacti looked in my garden at the close of 1894. I suppose I have 5,000 or more, and as you pass among the beds, you see the *Cephalocereus senilis*, snow white, and from two inches to two feet high; as a contrast *Cereus nickelsii* (*Cephalocereus polylophus*) comes next, tall, and a very bright fresh green color. A fine plant, by the way, bloomed for me last month, bearing a bright red flower. My tallest plant is about three feet tall, but I have seen them 60 feet tall, and not over 36 or 40 inches in circumference.

"Then the *Pachycereus marginatus* and a new variety of this species are fine looking plants and grow very fast. I had some cuttings of stout plants set out in front of my house about one foot tall, three years ago, they are now about eight feet tall, with the same care that the roses get planted by their side. I also have a *Myrtillocactus geometrizans* planted out two years ago, and it is now seven feet tall, and a rare beauty.

"I have so many cacti full of buds and flowers. The *Ariocarpus* have all been full of flowers the past month, and had some *A. retusus* blooms that measured four inches across, silvery white and beauties, six to eight flowers open at one time on a single plant. The *A. fissuratus* are a trifle smaller, of a bright rose color, and when one or two hundred plants are all in bloom at once 'tis a grand sight.

"*Mammillaria elegans* is in bloom and its flowers are red. A new mammillaria I have is also in bloom, flowers red, spines white, central spine long and yellow. Euphorbias are all in bloom. Orchids in bud. Geraniums and roses are blooming everywhere in the garden; also the thornless acacia trees are in bloom. The *Ferocactus latispinus* are full of buds which are so lovely. The *Echinocactus engels* also show signs of blooming."

In the same issue of the *Baltimore Cactus Journal* (1(9):92, March 1895) a letter to the editor is signed Texas, Mrs. Anna B. N. She wrote: "In the December issue (1(6):50, 1894) I saw an article on "Anhaloniums" (the genera *Ariocarpus* and *Lophophora*) by Dr. [Another brief notation is found on the editorial page (1(8):72) of the February 1895 issue: "Mrs Anna B. Nickels has a fine lot of cacti at reasonable prices."

"*Another brief notation is found on the editorial page (1(8):75) of the February 1895 issue: "Mrs Anna B. Nickels has a fine lot of cacti at reasonable prices."

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C. H. Z., of Pennsylvania, in which he says that there are seven well defined species, allowing Texas but two, viz: A. williamsii (Lophophora williamsii) and A. fissurata (Ariocarpus fissuratus). This is an error, as Texas has also the A. lewini (Lophophora lewini), and although very similar to A. williamsii, Dr. Lewin* (sic) found sufficient difference between them to warrant its being named for itself.

"I have never seen a description of Anhalonium aerolosum or A. elongatum (A. pulvilligerum) (note: all three are synonyms for villigerum) This is an error, as (Ariocarpus fissuratus). Dr. Lewin* (sic) found sufficient

"Relative to Anhalonium sulcatum (Ariocarpus kotschoubeyanus), I am positive that I have one, and it is a perfect plant, the only difference I can see between it and A. prismaticum (Ariocarpus retusus), consists in that the tubercles are deeply grooved in the center on the upper surface, and full of white tomentum. I did not know the name of it until two or three months ago, when I accidentally came across a description of it, and knew it at once. I am positive there is still another species, for I have seen the medicine peddlers in Mexico with dried specimens, very different from any I have ever seen. The next time I see any, I will secure a specimen, and if possible will have it named. Hope to have many new plants to write about soon.

"The Journal has been a source of much pleasure and profit to me."

Apparently Mrs. Nickels was quite familiar with the narcotic properties of Lophophora williamsii. Writing for the Smithsonian Report for 1908, Dr. William E. Safford makes the following comments (page 526) after mentioning that one of the important cactus collections in the United States is, "a garden established at Laredo, Texas, by Mrs. Anna B. Nickels, the veteran collector of desert plants."

"Mrs. Nickels has contributed much to our knowledge of Cactaceae and other xerophytes of Texas and northern Mexico. Specimens collected by her are cited in all modern works on Cactaceae, and many of her notes on their properties, uses, and life history are quoted. On a recent trip to Mexico this writer looked forward to visiting her in Laredo, but found that she was no longer there. Fortunately, he afterwards met her at the home of her son in the city of San Luis Potosi. Though she had left her garden behind her, she was still faithful to the objects of her early love, some of which she had carried with her on her exodus to the patio of her son's house, and there, like Gōthe's Waldblümchen, 'they blossom on'. Nearly every plant growing in her garden she had collected with her own hands. Many of them were from the valley of the Rio Grande but for some she had made extensive trips into Mexico, often finding it necessary to make long and painful journeys on muleback, and climbing among sharp rocks and along the escarpment of steep mountains where no animal could find foothold. From an economic view, the most interesting cactus of her collection was the narcotic mescal button (Lophophora williamsii), which she was among the first to bring to the notice of medical men. Her observations as to its use as an intoxicant and febrifuge by the Indians were published by Prof. John M. Coulter in his Preliminary Revision of the North American Species of Cactus, Anhalonium, and Lophophora. For many years Mrs. Nickels sent valuable consignments of medicinal and other plants of the Mexican boundary region to chemists, manufacturers of drugs, florists and botanists, both in the United States and Europe."

John M. Coulter, the noted American botanist, received several plants from Mrs. Nickels' Texas and Mexico collecting trips. In his Preliminary Revision of the North American Species of Cactus, Anhalonium, and Lophophora published in 1894, Dr. Coulter mentions her name five times. On page 97 under Cactus heyderi (Mammillaria heyderi), he writes of having examined specimens of this species "in the World's Fair collection of Mrs. Nickels." Commenting on Cactus (Coryphantha) scolymoides on page 115 he wrote, "Specimens collected by Mrs. Anna B. Nickels across the Rio Grande from Laredo, Texas, and showing neither flower nor fruit, seem to intergrade between C. scolymoides and C. scolymoides sulcatus."

Under Lophophora, page 131, which Dr. Coulter erected as a new genus, he makes this notation, "Mrs. A. B. Nickels reports that the Indians use the plants in manufacturing an intoxicating drink, also for 'breaking fevers', and that the tops cut off and dried are called (continued on page 227)"
'mescal buttons'." Specimens of Lophophora williamsii examined by Dr. Coulter included "Texas (Mrs. Nickels of 1892)," and of Lophophora williamsii lewiniti, page 132, "Texas (Mrs. Nickels of 1892, 1893)."

Mrs. Nickels was mentioned twice in Dr. Coulter's Preliminary Revision of the North American Species of Echinocactus, Cereus, and Opuntia published in 1896. In discussing Echinocactus cornigerus (Ferocactus latispinus), he wrote (page 363), "A form with the lower central yellow and the flowers salmon is noted by Mrs. Anna B. Nickels." A little known fact is that in this work, Dr. Coulter described a new species, Cereus bradtianus, discovered by Mrs. Nickels on the plains of Coahuila in 1895 and named it in honor of one of her friends. On page 406 Dr. Coulter noted, "The bright white spines on the vivid green body give the plant a striking appearance. Mrs. Nickels writes that the plant 'sometimes covers a half-acre of ground, and seems to propagate by falling over on the ground and rooting all along the stem from which new plants sprout.' Mrs. Nickels requests that the species be named for Mr. Geo. M. Bradt, editor of The Southern Florist and Gardener, of Louisville, Kentucky."

Drs. N. L. Britton and J. N. Rose in The Cactaceae (1:215) renamed Coulter's plant Grusonia bradtiana and commented, "This was first described as a Cereus from specimens collected by Mrs. Anna B. Nickels in 1895, then as a new genus Grusonia, and lastly as an Opuntia. It clearly is not Cereus, but when growing might easily be mistaken by its habit for Echinocereus." Grusonia bradtiana is pictured in color in Volume 1, page 209, of Backeberg's Die Cactaceae.
The Southern Florist and Gardener was a short-lived periodical published from August 1894 to June 1899. Few copies have survived and virtually no complete sets exist in U. S. libraries. Mrs. Nickels advertised her cactus nursery in this publication and probably contributed articles to it. A monthly feature in Southern Florist, at least during 1898 and 1899, was “Cactus Corner” conducted by A. A. Kleinschmidt. The entire June 1898 edition (Volume 5, No. 6) was devoted to the Cactus Family. It featured the only picture known to exist of Mrs. Nickels, with this notation: “It is with the greatest pleasure we present to our readers the picture of our esteemed friend, Mrs. Anna B. Nickels of Laredo, Texas. She is one of the most widely and favorably known among all of the cactus fraternity the world over, and surely none of us can look upon the kindly features of this pioneer collector without a keen desire to grasp the hand that has been busy so many years in giving all of us pleasure. Many more years of robust health and usefulness is the sincere wish of the “Corner”, and we feel sure that in this, all who read these lines will join us. Mrs. Nickels has very likely the largest number of succulent plants in this country, and no one having the opportunity to spend a few hours in Laredo should fail to see our friend’s cactus farm.”

*Kleinschmidtiana Zeissold (Montaschrift für Kakteenkunde, 8:21, 1898) = M. compressa DeCandolle.

Katherine Brandegee, famous California botanist, also knew Mrs. Nickels and named *Mammillaria nickelsae* in her honor (ZOE, 5:31, 1900). Drs. Britton and Rose transferred Brandegee’s plant to *Coryphantha nickelsae* (*The Cactaceae*, 4:34-34) in 1920. This beautiful plant of limited distribution is from Nuevo Leon, Mexico, an area Mrs. Nickels knew well. It is pictured opposite page 34 in Volume 4 of The Cactaceae.

Mrs. Nickels wrote of a successful way to grow cacti in an article, “A Cactus Mound” published in the Sharon Cactus Guide (1(5):6, Feb. 1897), the rarest of the cactus journals: She reported: “After 36 years experience I think I can say ‘Eureka!’ I have at last learned how to cultivate cacti. Three years ago I had an oval tank built in front of my residence; it was about 15 feet long, 10 to 12 feet wide, two feet below the surface and one above; with a foot and a half all around the top for a walk. I filled it with water lilies of all colors, and pink and yellow nelumbiums. They grew lovely and were always in bloom; and as it was on the front street was very much admired. The first year it gave us much pleasure, but the second year, the pretty spotted frogs got into it, and we found their music annoying at night, so I moved the lilies to a tank in the rear and so far away we could not hear them, and let off the water and the frogs took their departure.

“So I thought up a plan that has proved

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**Fig 2.** This advertisement appeared in the February 1895 issue of the Southern Florist and Gardener. Similar advertisements with an illustration of *Echinocactus visnaga* appeared in four issues of the Baltimore Cactus Journal from December 1894 to October 1895.
Fig. 3. The cover of Mrs. Nickels’ catalogue circa 1894. She was justifiably proud of her plants which won the highest award at the Chicago World’s Fair in 1893.

quite a success so far as the tank goes. I had a lot of dead cacti from one to six feet tall, waiting to be buried. I had them all put into the tank, then piled stones and broken bricks with soil on top, then a lot of stable manure, and then rich soil and sand. It was as tall as I wished, about 2½ feet above the edge of the tank; well mixed with stones and broken bricks. When I achieved a nice oval shape, I planted in the center a four foot Ferocactus stainesii, and three feet apart each way, I placed a four foot Cephalocereus senilis, making a nice square. Then on each end I planted a very large Echinocactus ingens. On one side I placed a four foot Cereus nickelsii, (the finest cereus I have); on the other side a cluster of Lemaireocereus thurberi. I filled in all places between with echinocacti, mammillarias and small cerei. Then I added small opuntias; climbing cerei and all sorts of pretty echeverias, mesembryanthemums, and so forth. Finally I added a row of yellow mammillarias, a row of pure white mammillarias and next to the walk, plain bright green M. decipiens. You
Fig. 4. Page 26 of the catalogue (circa 1894) features a photograph of her famous Agave nickelsii (*A. victoria-reginae forma nickelsii*). This same illustration was published in the June 1895 issue of the Baltimore Cactus Journal in an article that discussed this species.

Anna B. Nickels, Laredo, Texas.

*AGAVE NICKELSSII.*

This Agave is similar in appearance to *A. Victoria Regina*, except that it is of much more robust growth, the leaves being thicker and more distinct. $1.00 to $3.00.

*A. victoria-reginae* forma *nickelsii*. This is truly a curious plant; the leaves are thin and long, twisted into different shapes, as a cow's horn, and in some instances like a cork-screw. Spines very grotesque in shape, some being twisted very wide and thin, and sometimes resembling a cycle. 50 cts. to $2 each.

*A. mesotillo.* A fine Agave with a pale stripe down the center of the leaf, similar to *A. Lecheguilla*, but of larger and stouter growth. 50 cents to $2 each.

5 small Agaves, my choice, $1. 12 of good size, $4.

*AGAVE DASYLIRION.*

*AGAVE STRICTA.*

can hardly realize how beautiful it is, and all the plants have grown for a year or more and get lovelier every day. My mound has been an entire success. Anna B. Nickels, Texas. "Mother of Cacti (sic) Family."

The last contribution I could find attributed to Mrs. Nickels appeared as a letter to the editor of the Sharon Cactus Guide (1(7):6, April 1897). In it her son, Ben H. Ells, was named for the first time. None of the numerous references I consulted mentioned her publications in the *Cactus Guide* so obviously they were overlooked.

"Editor Cactus Guide: I now have on hand the finest and most beautiful collection of cacti that I have ever seen. First and most beautiful, comes Cereus nickelsii, a little over four feet tall, a perfect specimen, grooves small and
close together, increasing in number and thus in the size of plant each year, becoming globe-shaped, color a vivid green, short, fine spines on the ribs, a beautiful amber color, flowers small scarlet in rows around the top, 4 to 6 inches below the apex, and forming a ring around the plant of such a bright color that the contrast with the vivid green of the plant makes it very pleasing to the eyes and restful. I think it the most lovely cereus I have, and it is a fast grower.

"I have a large Acacia farnesiana tree, (now in full bloom and very fragrant), ranged around it I have a tub of Selenicereus grandiflorus trained to a perfect balloon-shape. In addition, I have one tub each of Acanthocereus pentagonus, Selenicereus pteranthus, Hylocereus undatus, Harrisia regelli, H. tortuosa, and a cereus with very stiff, harsh, yellow spines (I am not certain of its name). The flowers of the latter species are about the size of Selenicereus grandiflorus, but the green sepals of the calyx extend nearly an inch beyond the white petals of the flower, which gives a rare attraction. Altogether it is a beautiful cereus. In its native home it is called Sorritto, meaning a fox, I suppose from its beautiful spines which look so innocent, but are fearfully sharp and sting like nettles, yet I like it.

"I have one tub of Cereus fragilis*, and another one of a very stout growing form of C. triangular (Hylocereus undatus) that my son, Mr. Ben H. Ells, found in the hot coast country of Mexico called the Huesteca, so I called it Huesteca triangularis. It has not bloomed yet but the plant is beautiful.

"All of these plants I have arranged around the acacia tree with many other smaller plants. It is a grand sight for a cactus lover. I expect a lot of flowers this season. Harrisia tortuosa gave me the largest and prettiest bloom last year, the bud was lovely, and the outside of the

*An unpublished name which is not recorded in the literature.

Fig. 5. Pages 10 and 11 of the Nickels' catalogue issued about 1894. This handsome publication was illustrated almost entirely with woodcuts from the famous Blanc's catalogues.
petals was flushed with pink, which was charming.

"Next time I will tell you of my queer shaped plants; I have ten. I think them too beautiful to call monsters, they are in full bloom with ripe red fruits."

There is no record of how many catalogues Mrs. Nickels issued. The Henry E. Huntington Library at San Marino, California has the three mentioned below, two of which are undated. The earliest of these probably was issued about 1890. It contains 28 pages plus covers. The front cover is illustrated with a woodcut of Echinocactus multicostatus (Echinofossulocactus multicostatus) and there are 47 others in the catalogue. The last six pages (23-28) are devoted to miscellaneous trees and shrubs, orchids, ferns, vines and miscellaneous plants. In the introduction to this catalogue, Mrs. Nickels comments, "Thanking my many patrons for their kindly appreciation of my pioneer Cactus Catalogue, I take pleasure in inviting their attention to this new and enlarged edition." This suggests that only one previous catalogue was issued.

The catalogue illustrated in this article probably was issued about 1894 and I have a copy. Mrs. Nickels' plants had received the highest award at the World's Fair in Chicago in 1893 and this is noted on the cover. The catalogue contains 28 pages plus the covers. A picture of Mrs. Nickels' Arcadia Garden, reproduced in this article, comprises the inside of the front cover. The catalogue is illustrated with 45 woodcuts from Blanc's catalogues. This may be the "Nickel. Catalogue of Cactuses" listed in the bibliography in Succulent Plants by W. Taylor Marshall (Sawyer's, Portland, Oregon, 1945). A search for this illusive reference over several years culminated in writing this article!

The third catalogue consists of four pages, including covers, and is designated as, "Cactus and Rare Texas and Mexican Plants. Wholesale prices to the Trade Only, For 1896 and 1897. Mrs. Anna B. Nickels, Collector and Dealer, Laredo, Texas, U.S.A."

A woodcut of Ariocarpus fissuratus adorns the front page and the view of Mrs. Nickels' garden the back.

Should any reader have additional biographical information about Mrs. Nickels, know of other articles by or about her, or have or know about other of her catalogues, I would appreciate hearing from him.

REFERENCES


BOOK REVIEW

CACTI AND SUCCULENTS INDOORS AND OUTDOORS—Martha Van Ness

Recently there has been published a wealth of books and booklets directed towards the beginner or amateur on the cultivation of cacti and other succulents, and this latest work by the Van Nostrand Reinhold Company is in many ways a pleasant and attractive addition. The book consists of 112 pages, hard bound, and with a very attractive layout. The drawings by Norman J. Stein accompanying the text are absolutely delightful. The handsomely laid out text has valuable information, advice and suggestions, covering most aspects of the hobby: where to buy plants, how to grow them, how and when to repot, which plants are best for ground covers, dish gardens, window gardens, etc.

Mrs. Van Ness, in a note on plant names, states that "botanical names of plants often confuse readers, but there is no need to be frightened of them." Fright no . . . healthy respect yes, and unfortunately this is where the book falls down miserably: there is little excuse for misidentification of common species and none for misspelling of their names. Mrs. Van Ness further states that "spelling of botanical names occasionally differs"; this is true only to the extent that there is a right way and a wrong way. A quick check in a lexicon would reveal the proper spelling of such names as Lobivia chrysochete, Echinopsis kermesina, Euphorbia echinus, Gymnocalycium comparapense (the plant pictured on page 93 is not only misspelled but also misidentified), Lobivia cinabarina, Stapelia arenosa, among many other misspellings which are deplorable in a book such as this. Incomprehensible, moreover, is the misidentification of such common plants as Agave filifera figured for Agave attenuata on page 11 (here too even the "gravelly soil" is misidentified as a "landscape"). The plant pictured in flower on page 18 is an Epiphyllum, not Hylocereus undatus, and the plant pictured on page 101 with the "candelabra growth habit" is a cactus, not "a large Euphorbia" as the caption claims.

It is regrettable that a book that is interestingly written, handsomely illustrated and designed, full of useful information, is flawed by these serious mistakes in spelling and identification. Nevertheless we do not hesitate to recommend it, if only for the exquisite drawing of Astrophytum carpri for the exquisite drawing of Astrophytum carpri-

Available from Abbey Garden for $8.25, postpaid, or from your local bookstore.
A: As one can see from its large red bell-flowers, *A. phillipsiae* is an exceptional species and this holds true for all aspects, including reproduction. The very soft leaves will not root for me unless a bit of adjacent stem is gouged out when I remove them; stem cuttings are more reliable. The species grows in protected places, which might account for the tenderness of its leaves. Apart from the classic locality southwest of Sutherland, I’ve seen it northwest of Loeriesfontein in well-shaded crevices, but these plants have brownish flowers!

Q: How long can trichocaulon seed remain viable?
A: I can only speak for myself, but *T. cactiforme* seed, trapped in our hot office since 1984, just germinated beautifully. Stapelia and caralluma seeds have lasted at least four years. Indeed, a great many seeds last longer than people think, and this is even true with haworthia seed, which can hold out for six years here. However, the air is quite dry in New Mexico.

Q: I am troubled by the water stains on my *lithops*. Growth is strong and healthy, but the patterns are badly obscured. Is there a remedy?
A: Stains will last as long as the leaves, but there are a few things one can do to minimize this problem. I water with a fog nozzle, using it in combination with a pressure valve, so that I get a slow but steady stream; this way I can direct the water away from the bodies. Nonetheless some water does touch the plants. If I am feeling particularly vain (how curious that we transfer vanity away from our own physiognomy and onto theirs!) I will mist the plants with distilled water immediately after the nozzle-watering. Otherwise, one can just accept that spotlessness is one of the briefer pleasures of spring.

**ANNA B. NICKELS**

From Chicago’s 1893 Columbian Exposition, Liberty Hyde Bailey filed a report on the cacti, writing in part: “In the south wing of the Horticultural Building Mrs. Anna B. Nickels, of Laredo, Texas, has a large and excellent exhibit of cacti. Two hundred and eighty-seven species were brought to the Fair, but some of them have been lost because the building is not adapted to their cultivation. Mrs. Nickels has been interested in cacti most of her life, and for about 20 years has collected them for sale. Some 17 years ago she issued a price-list, which was the first catalogue of cacti published in this country. Mrs. Nickels has collected cacti over a wide range of country in many journeys, in one season gathering with her own hands 60,000 specimens within 2 months’ time. All the plants in her collection at the Fair are wild specimens, freshly transferred from their native soil, the purpose being to show the species in their indigenous forms. There are some remarkable fine specimens of *Echinocactus pilosus*, 4 feet high; *E. cylindracea*, *E. grussoni*, *Cereus dumortieri*, *C. nickelsii*, a species which in its native soil grows to a height of 30 feet without a branch; *C. passacana*, *C. pugioniferus* and its variety *geometricans*, *C. thurberi*, *Pilocereus houlettii* and *P. hoppenstedti*, and *Anhalonium prismaticum*. This exhibit excels in the long or upright cacti of cereus type, a characteristic mark, apparently, of the cactus flora of her region.” From *Garden and Forest*, Vol. 6, No. 294, page 429, October 11, 1893.

**WHAT’S NEW**

*Aloe*, the South African succulent society’s journal, published a new stapeliad, *Tridentaea pusilla* Frandsen, in its no. 2 of vol. 29. There are also articles on *Euphorbia monteiroi* (its var. *brandbergensis* becomes up to 3 meters high!), *Sarcostemma*, and an entertaining piece on Kaokoland by Dave Hardy. This is certainly one of the most attractive journals on succulents, with many large color photos. We highly recommend membership (66 rands a year) in the Succulent Society of South Africa, PO Box 1193, 0001 Pretoria, S. Africa.

*Asclepios*, journal of the International Asclepiad Society ($20 a year, from D. Craig, 67 Hill St., Norwood, MA 02062), has published a new genus, *Leachiella* Plowes, to contain the smooth-stemmed trichocaulons. Plowes has also transferred the remaining species of trichocaulons (those with spiny stems) to *Hoodia* so that, following his system, *Trichocaulon* is no longer recognized as a genus. A lively debate on this subject is carried out in No. 58 by Darrel Plowes and Peter Bruyns.

In recent issues of *Kakteen und andere Sukkulenten* Werner Rauh has published several new Madagascan euphorbias: *E. banae*, *E. subpeltatophylla*, and the strange *E. bongolavensis*. In the February issue Helmut Regnat concludes his beautifully illustrated, seven-part survey of New World Crassulaceae. This handsomely printed, monthly German periodical is very worthy of your attention; unfortunately, due to the exchange rate, it is expensive for those in the US: 60 German marks, about $38 (send to Peter Mansfeld, Grotenbleken 9, 2000 Hamburg 65, Germany).