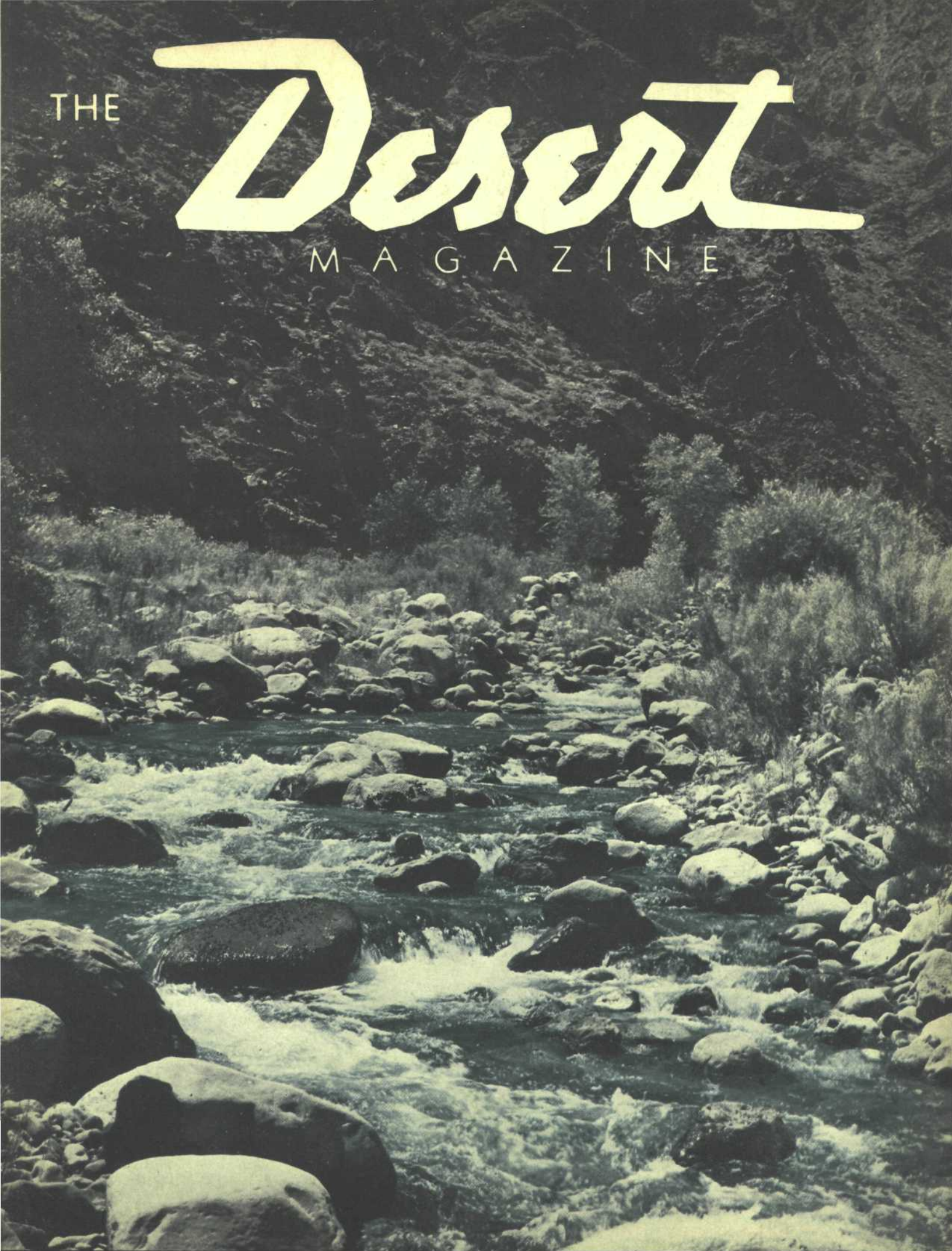


THE

# Desert

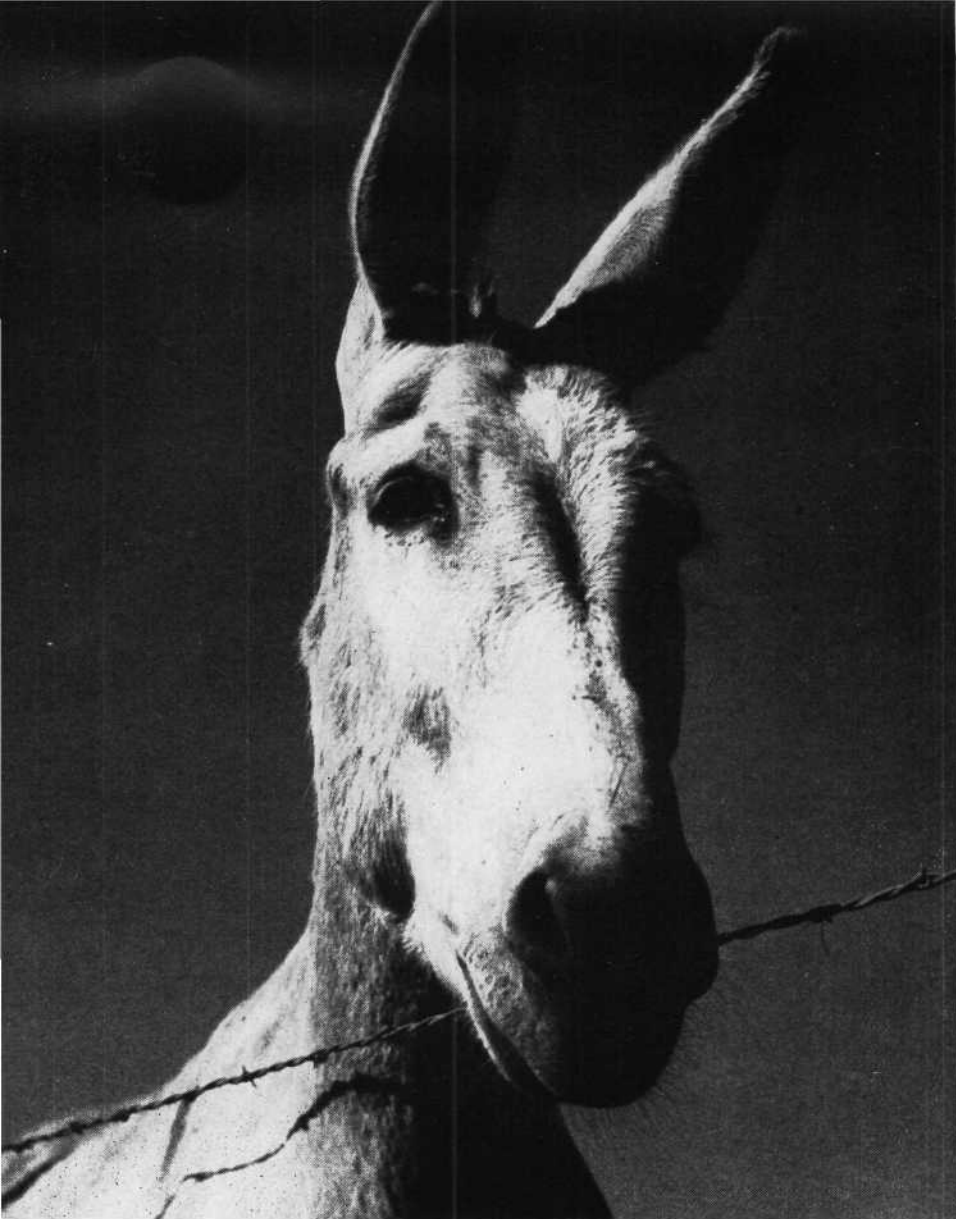
M A G A Z I N E



SEPTEMBER, 1946

25 CENTS





## *Winners in July Contest*

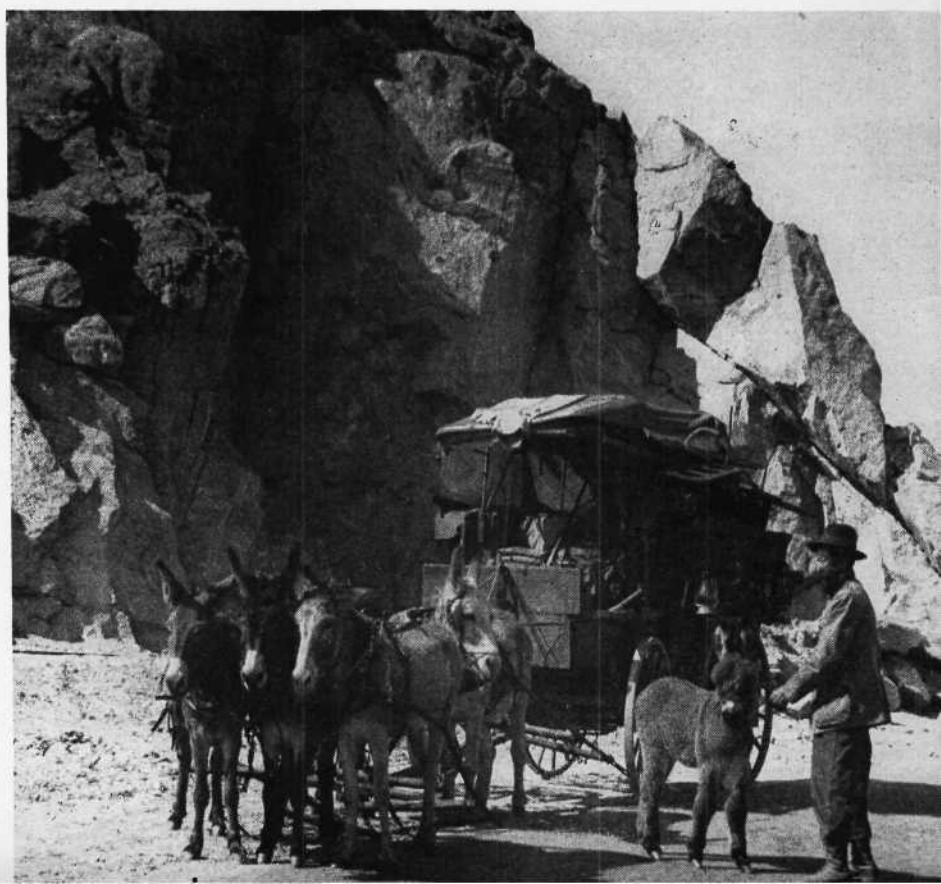
### *El Burro*

Winner of first prize in Desert Magazine's July contest is this portrait of a burro on the Mojave desert, by Wm. A. Oberlin, Ventura, California. Camera data: 1/100 sec. at F8, Plus X film, K-2 filter, 3 p. m.

### *Burro Outfit*

This photo of a burro outfit, winner of second prize, was taken by Laura Adams Armer of Fortuna, California, in 1919 on the highway at Point Happy near Palm Springs, California. Smith lens, F16, 1/25 sec., 11 a. m.

To many who never have been in the Southwest, the desert means a barren place where only rattlesnakes, gila monsters and other such reptilian life exists. Of course this, as Desert Magazine readers know, is a mistaken idea. But reptiles, from the sidewinder down to the tortoises and horned "toads," are interesting and characteristic desert denizens. In order to present some of the finest photographic records of this phase of the Southwest, Desert Magazine's September contest is entitled Reptiles. Rules are elsewhere in this issue.



# DESERT Close-Ups

• Best news this month is that DESERT's paper allotment has been increased—and that means another eight pages about the desert in this issue and—we hope—the months ahead. Writers have been sending in some fine stories and pictures during the period of short paper rations, and material has been piling up waiting for the day when it could be published. Nine years ago when first issue of DESERT was printed, some of our friends feared we soon would run out of material. Actually, we buy only about one out of 20 manuscripts submitted—and still it accumulates faster than we can use it.

• Newcomer to DESERT'S pages next month is Elizabeth Cannon Porter, well known historian and student of Mexico, whose recent historical novel, *Cortes the Conqueror*, romance of Cortez and the Aztec maiden Marina, won wide acclaim. The author, in private life Mrs. George A. McCrimmon, is honorary member of International Mark Twain society and is winner of Eugene Field award. Her story for DESERT, approved by Mormon officials, is advance account of the celebration and monument at Salt Lake City, which will commemorate, July 24, 1947, the centennial of the arrival of Brigham Young and the Mormon pioneers in Salt Lake valley.

## DESERT CALENDAR

- Aug. 31-Sep. 2—Nevada's 35th state fair, Fallon.
- Aug. 31-Sep. 2—18th annual rodeo, Winnemucca, Nevada.
- Aug. 31-Sep. 2—Rodeo, Williams, Ariz.
- Aug. 31-Sep. 2—Rodeo and horse show, Bishop, California.
- Sep. 2—St. Stephen's Day, harvest dance, Acoma pueblo, N. M.
- Sep. 4—St. Augustine's Day, harvest dance, Isleta pueblo, N. M.
- Sep. 5-6—Santa Fe fiesta, "America's oldest community celebration," at Santa Fe, New Mexico.
- Sep. 5-7—Horse show, Ogden, Utah.
- Sep. 5-7—Peach Days, Brigham City, Utah.
- Sep. 6-8—St. Augustine's Day, corn dance, San Ildefonso pueblo, N. M.
- Sep. 6-8—Rodeo, Winslow, Arizona.
- Sep. 9-14—"Boulder Dam Decade" celebration, commemorating dam's first ten years' service to Southwest, Boulder City, Nevada. E. A. Moritz, bureau of reclamation, chairman.
- Sep. 11-14—Southern Utah livestock show, race meet, Cedar City.
- Sep. 16-22—Utah's Golden Anniversary state fair and rodeo, Salt Lake City.
- Sep. 19—Annual fiesta, Laguna pueblo, New Mexico.
- Sep. 22—Arizona Photographers show ends, Museum of Northern Arizona, Flagstaff. Opened Aug. 21.
- Sep. 28-30—San Geronimo fiesta, Taos, New Mexico.
- Sep. 29-Oct. 5—New Mexico state fair, Albuquerque.



Volume 9

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Number 11

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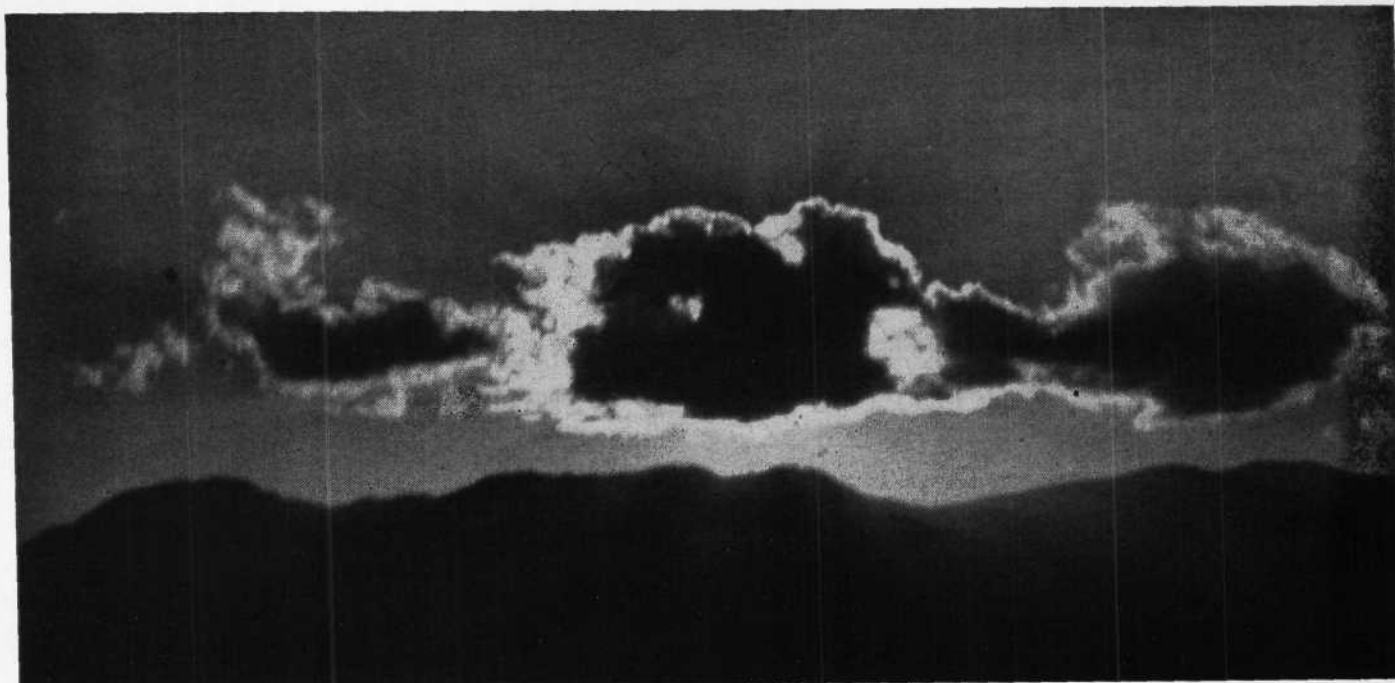
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### THE ARROWHEAD

By NELL MURBARGER  
Costa Mesa, California

So still it lies, within my hand . . .  
And yet, this flint bespeaks a band  
Attacking at the break of dawn,  
With pagan cries to goad them on  
To raid and plunder, maim and kill,  
Where peaceful tribes are sleeping, still.

And then, I hear the throb of drums  
That spread the word, "The foeman comes!"

With gallant shouts, braves leaped to go  
To meet the onward rushing foe . . .  
From out his quiver one had drawn  
A feathered barb and sped it on;  
And where it fell, beside the way,  
I found an arrowhead, today . . .

### DESERT REVERIE

By MARGARET KREBS  
Baltimore, Maryland

I lay in my bed, silent and dreaming,  
Trying not to think and yet seeming  
To want to know how and why  
The broad plains of land and sky  
Create in me this pressing loneliness.  
On my horizon only emptiness,  
Yet, in my mind I know full well  
If home were here my heart would swell  
At sight of dunes 'neath azure blue  
And I would be content to spend my life with  
you.

### ODE TO THE DESERT

By J. C. WHITTED  
Clovis, New Mexico

Some there are who love a mountain; some there  
are who love a plain;  
Others love a fruitful valley, where the fields  
are bright with grain.  
But give me the mighty desert, with its shifting,  
trackless sand—  
For the desert has a greatness that my heart can  
understand!

Let its white-hot sun upon me, burn the evil  
from my soul;  
Let the clean heat purge and cleanse me—let the  
desert make me whole!  
There I live in comprehension of the Master's  
Perfect Plan:  
I'm a robot in the city—in the desert I'm a *man*!

### Sunset

By ELIZABETH LEE SARGENT  
Ontario, California

Like giant granite walls the mountains rise,  
Their mystery shall never cease,  
And sunset with a brilliant brush,  
Makes of their gloomy maze a masterpiece.

High upon yon purple shadowed peak  
The sinking sun casts one fluorescent ray  
—The touch of Master Painter with his brush  
To symbolize the close of one more day.

Rich crimsons vie with shades of deepest blue,  
While banners rimmed with orange light,  
Seem painted by unseen fingers  
Against the velvet background of the night.

Too soon the lovely picture fades away,  
And where the rugged peaks arise  
The stars begin to softly shine—  
Like tiny golden candles in the skies.

### DESERT SAND STORM

(Apologies to Poe)  
By CECILE BONHAM  
Glendale, California

O you mad, rebellious spirit  
With your many-fingered rapping  
With your whimpering and tapping  
At my windows and my door,  
Curses on your mournful wailing  
Like a demon that is ailing  
You shall never find me quailing  
As before.

Once I feared you as a master  
With a spell that none could banish,  
You could make my courage vanish  
With your damnable uproar;  
Now I know you are a bluffer,  
Just a vain and ancient puffer,  
And you cannot make me suffer  
Any more.

Fill my home with all your rubbish,  
Search for every crack within it,  
Make it quiver every minute  
With your fierce and awful snore,  
I'll be sleeping, never stopping,  
Though the very walls be dropping,  
And tomorrow I'll be mopping  
Up the floor.

### ONE WHO WROTE NO POEMS

By CARROLL DEWILTON SCOTT  
San Diego, California

She does not write her poems  
For curious eyes to read,  
Although she loves the poets  
Who answer to her need.

It's just a kind of hobby  
To play with rhyming words,  
And make a music stilted  
Compared with singing birds.

Poems are often fool's gold  
Glittering for a day;  
A selfish mind can make them  
As hypocrites can pray.

And well it is for humans  
That, like a lovely tree,  
There are some happy spirits  
Who live their poetry.

### MOJAVE DESERT

By GILEAN DOUGLAS  
Reno, Nevada

This desert is not sand or heat or glare,  
But half my heart.  
It is a dream when northern nights are long  
And words are bare;  
It is the suppliant, nostalgic song  
Of two apart.

What is a spring of blossoms when the sage  
Smells passion-sweet?  
What is a rose when yucca candles shine  
On summer's page,  
While my heart marks the rhythm of each line  
With fervent beat?

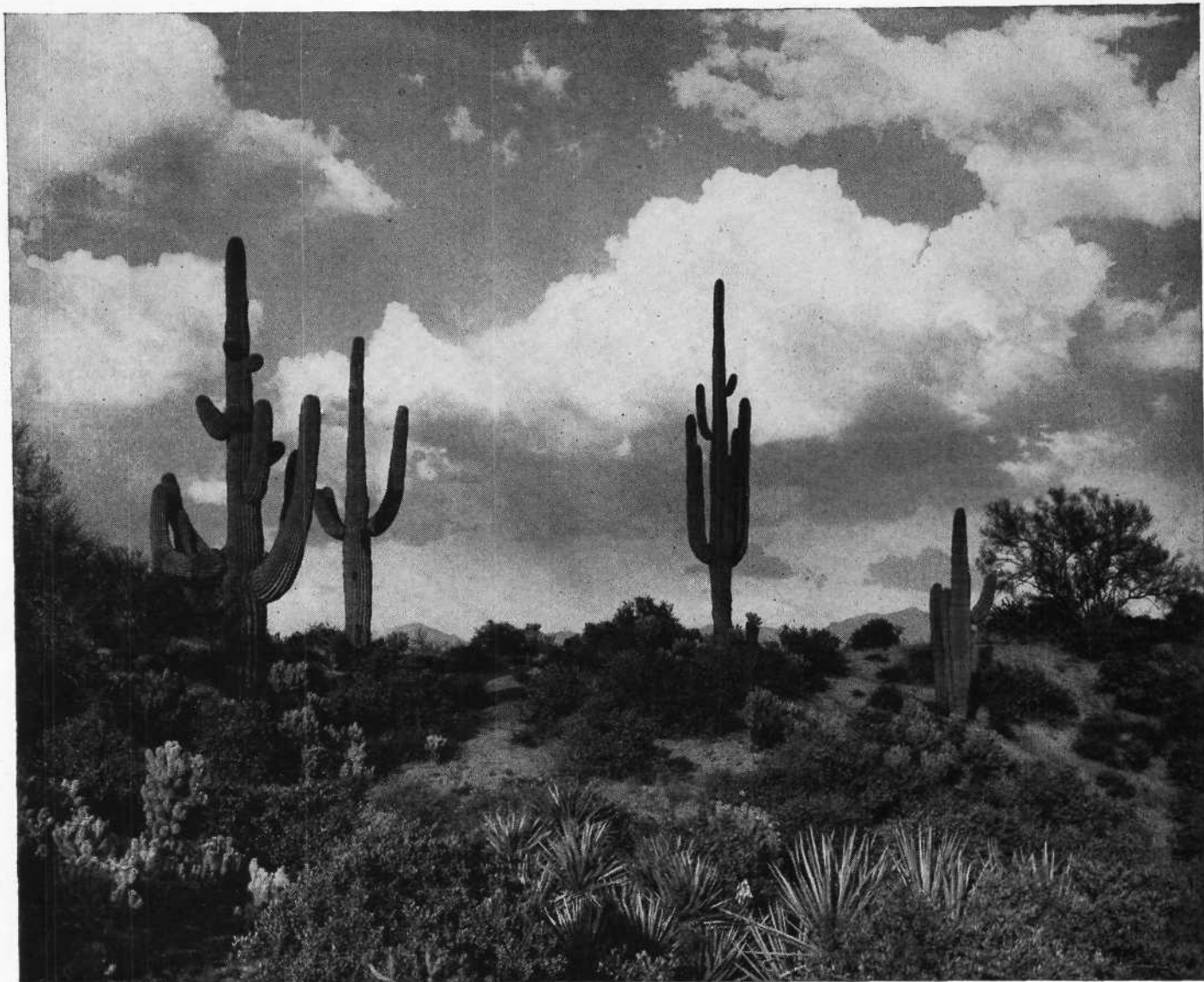
And once I saw the Spanish dagger stab  
A desert dawn!  
So now this autumn streels down northern ways  
A painted drab,  
Unanswered and unsought because of days  
Beloved and gone.

### CREED OF THE DESERT

By JUNE LEMERT PAXTON  
Yucca Valley, California

While Saguaro stretches up his arms  
Imploring for the showers,  
Incongruously upon his head  
He wears a wreath of flowers.





*A wide variety of animal adaptation to the desert may be found in this community of saguaro and cholla cactus, yucca and creosote. Here numerous birds, each adapted to its environment in its own way, use the plants to full advantage. Photo by U. S. Bureau of Reclamation, taken near Bartlett Dam, central Arizona.*

## *They Live in Heat and Drouth*

If you have wondered how an animal can survive in a land of treeless desolation, of heat and drouth, you'll be interested in some of the ways that Nature has devised to take care of her children. Some of them simply have become rugged enough to endure a hard life, while others are equipped with some strange traits and habits to combat the elements of a desert land. There are others—part-time desert denizens—who can range far enough to avoid desert extremes. John Blackford tells about some of the animal citizens who are successful survivors in a land where only hardy individuals can exist.

By JOHN LINDSEY BLACKFORD

Photos by the author unless otherwise credited

**T** AUT, almost to breaking, I tensed the thread that would fire the synchro-flash of my camera. At last a shy Palmer thrasher was settling cautiously on the four brown-specked, blue-green eggs cradled in her stick-nest in the

cholla. Suddenly a volley of shattering expletives exploded from a bristling cactus beside the camera only a few feet from the thrasher's address.

The resulting reflex action caused me to jerk the tightened thread, automatically

tripping the shutter. But it produced a top-notch picture, thanks to my "assistant," an irate cactus wren. Perched on a fiercely-spined cactus joint, the hostile matron continued her diatribe. She seemed not at all disturbed by the flare that instantly dispersed her unobtrusive neighbor; nor even handicapped in her scolding by an assorted beakful of leg-waving insects. My surprise doubled at sight of the nearly-grown crew of fledglings that popped open mouths from an undetected doorway in the same golden-spined cholla and chorused insistent approval. Promptly I trained the camera's eye on this crowding family. Their bustling parent, not long diverted from important matters, hurried about their feeding.

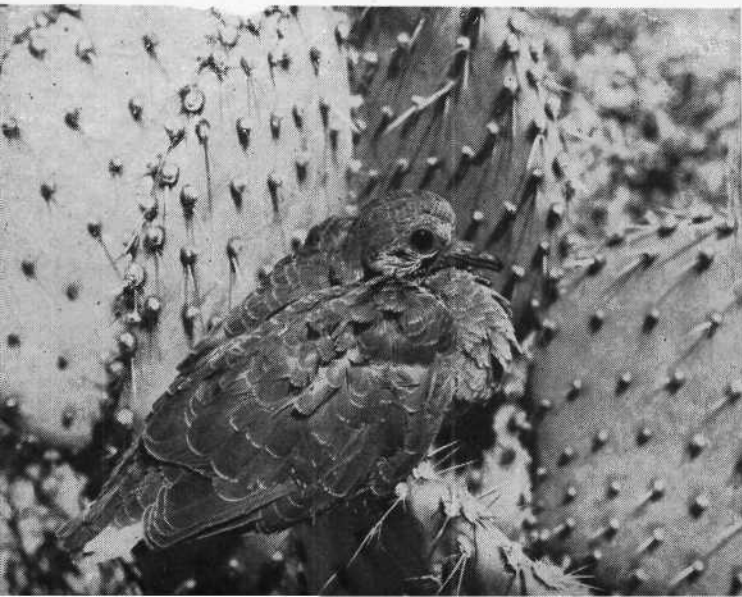


*The Kangaroo Rat is one of the most successful examples of desert adaptation. He is said to survive rainless periods of three to five years without discomfort.*  
George McClellan Bradt photo.

It was but March 18 on the already shimmering Hassayampa plain in west central Arizona. Yet until April 23 I could not find another cactus wren's nest with eggs,

and the 26th before nestlings there became common. Rugged individualism, superlatively demonstrated by my speckled critic, undoubtedly enabled this race of wrens to

*Left—This young Western Mourning Dove's versatility saves it from being dependent on specialization. It nests low in cactus or high in cottonwood. Its wide range enables it to escape heat by migrating to higher, cooler altitudes.*

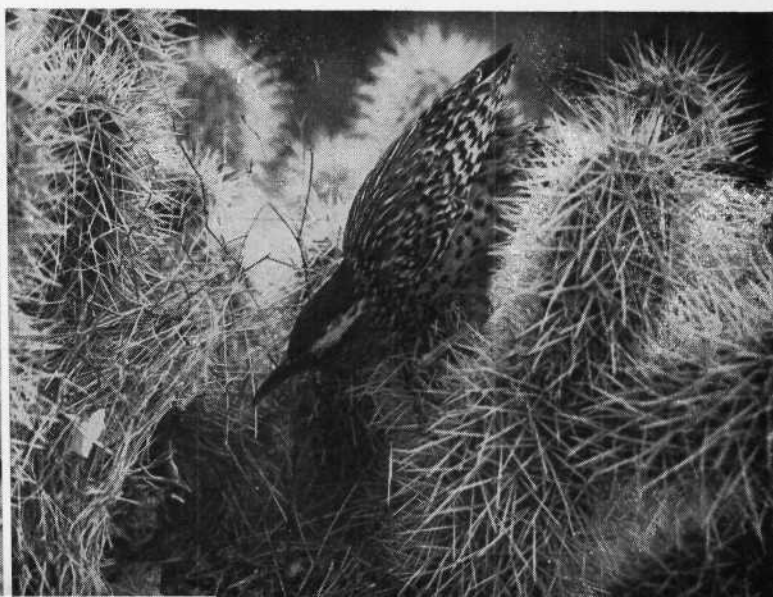


conquer the desert. Even the dread cholla bends to their purpose and becomes a defiant guardian. With survival assured, the cactus wrens have achieved two "luxuries" seldom tolerated in this land of abiding thirst and threatened starvation. In size they have increased strikingly over their kindred elsewhere, and in dress they display such a startling plumage pattern as to give mere dun-colored wrens scarcely a claim as humble relations.

Most of the desert's children do not provide such contrasts. They conform in coloration as well as habit to the exacting requirements of the desert. A few, like man, are cosmopolitan species that have made only minor accommodations to arid surroundings. The others, all graduates of the arid land's merciless training, have not only adjusted themselves to distinctive diets and formulated habit-patterns ideal for this special environment; they have drastically altered bodily functions and modified physical forms as well. Even a brief survey of the amazingly clever adaptations that fit each desert denizen into its particular habitat niche becomes an adventure that is endlessly intriguing.

Across the desert's parched, buff-colored reaches, it is commonly leagues to water. Within this expanse of aridity live mammals that may never drink from birth to death. In the wonderful laboratories of their own bodies they extract moisture from their solid food by the chemical magic called hydrolysis. Other dwellers here reverse the season of hibernation, and estivate, or become dormant, through the long summers of torturing heat and drouth. They lie blissfully torpid, deep within underground retreats, while plant and animal life above face the climatic crisis that yearly threatens death and sterility. Yet there are other forms, the reptiles, that enjoy the furnace-like breath of summer, tempered only by surface shade, and that disappear in turn when cool win-

*Right—The Cactus Wren is another versatile, independent bird. In its bristling home it is comparatively free from enemies. Its bright markings are in contrast to most drab colored desert denizens.*







*Kit Fox of the desert is larger and stronger than his Great Plains brother, giving him a longer range in his predator raids on nocturnal rodents.*

ter returns to dune, creosote plain and rocky scarp of the ranges.

Still another group survives under the scorching sun and through the chill winter night, because like the kit fox, they are armed chiefly with an agile wit against the extremities of their unique environment. These are the ones that know the location of every tinaja and "coyote well," that prey skillfully upon lesser associates, and generally choose the nighttime for activity.

The highly developed storing ability and tireless industry of desert rodents en-

able them to bridge the months of scarcity between annual ripenings of the desert's uncertain bounty of fruit and seed. Deep burrows with cleverly designed store rooms and cool, moist basements help to relieve them of trial by thirst and heat. By day entrances to their many-tunneled shelters are tightly closed. At night, when lower temperatures and higher humidity fail to tax their water reserves, these successful denizens of dune and mesa work and play across the desert's moon-drenched floor. The voracious little grasshopper or scorpion mice are year-round hunters, and de-

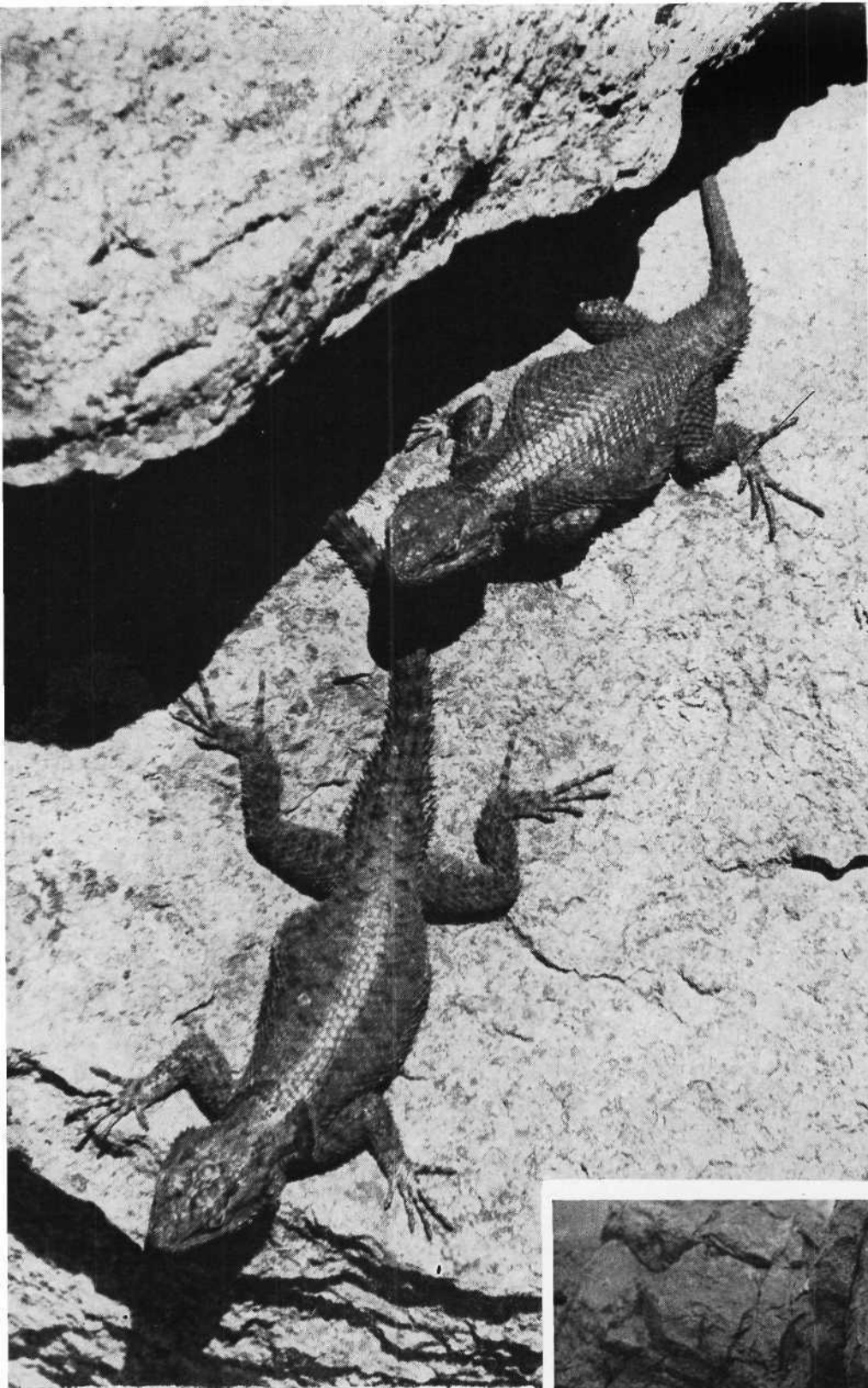
rive adequate moisture from organic juices of their plant-eating insect victims. All drought-resisting carnivores depend materially upon liquids contained in the bodies of their prey.

Many noticeable differences in size, form and coloration mark the denizens of the desert. Generally there is a slight dwarfing among them, separating each from its kindred geographical forms. A paleness in color of fur, plumage or scale also sets them apart. Buffs, browns, greys and fawns mark countless desert folk. Such subdued shadings are credited by investi-

*Left—Palmer Thrasher, as well as the Cactus Wren, depends on a cholla fortress for protection. But its grey-brown color also makes it inconspicuous.*

*Right—This young Abert Towhee's world will be limited to the leafy verdant strips along desert rivers, for he has no special adaptation to the arid land.*





*Left—An elastic armor of scales gives the lizard ability to absorb heat while preventing evaporation. These are Western Black-scaled Lizards.*

gators not only to Nature's gift of protective coloration, but to low humidity of arid regions, a climatic factor causing loss of pigmentation in skin and pelage. And who does not recall those even more strangely modified individualists of sun, sand, cactus and rock—the horned toad, sidewinder and kangaroo rat.

In addition to these "native sons," the fauna of the desert includes many that seasonally migrate, not away from the arid lands, but upward on the slopes of its more hospitable ranges. To them we add the inhabitants of stream borders—dwellers in the long, winding ribbons of green that line watercourses journeying across the desert. Similarly, summer bird residents and winged winter vacationists residing in the desert's miniature oases, the bowered greenery crowding about springs and occasional seepages.

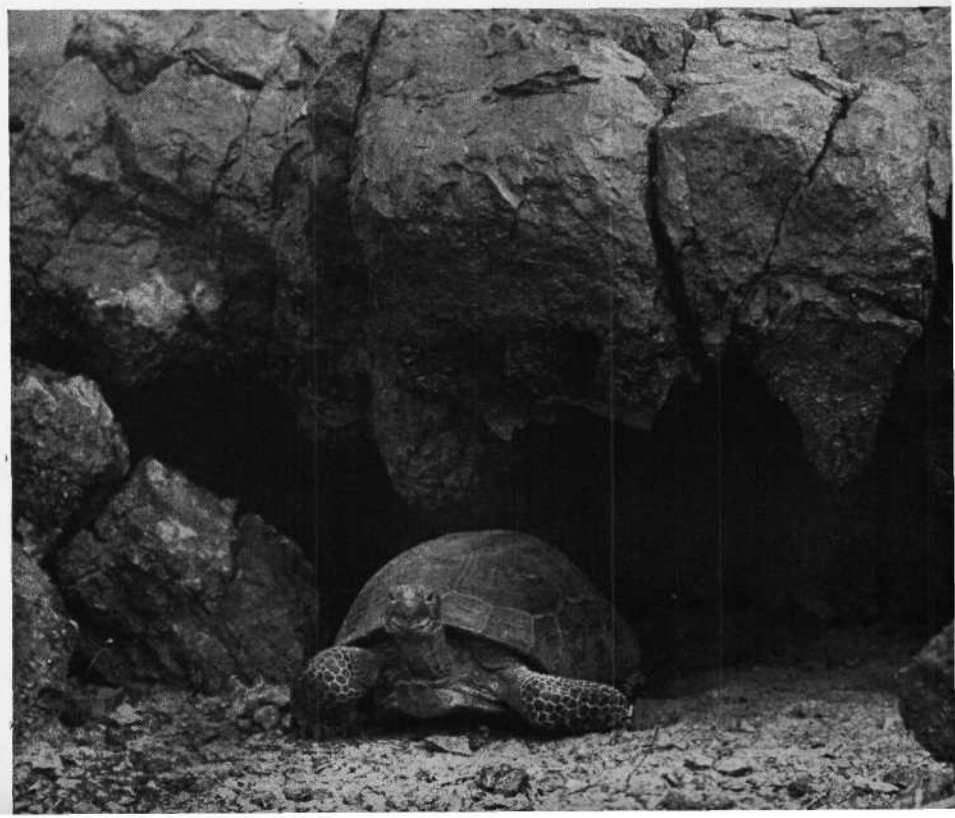
But these that have the unmistakable stamp of the desert upon them—the summer sleepers, the distillers of precious moisture, the year-round defiers of heat and prolonged drought, the wearers of pallid hue—we must consider the true denizens of the desert. Others here are but sojourners in this land of aridity and heat.

#### **Saguaro Association**

Physically modified by climate, moisture, food and shelter extremes, the desert's inhabitants successfully populate a land of

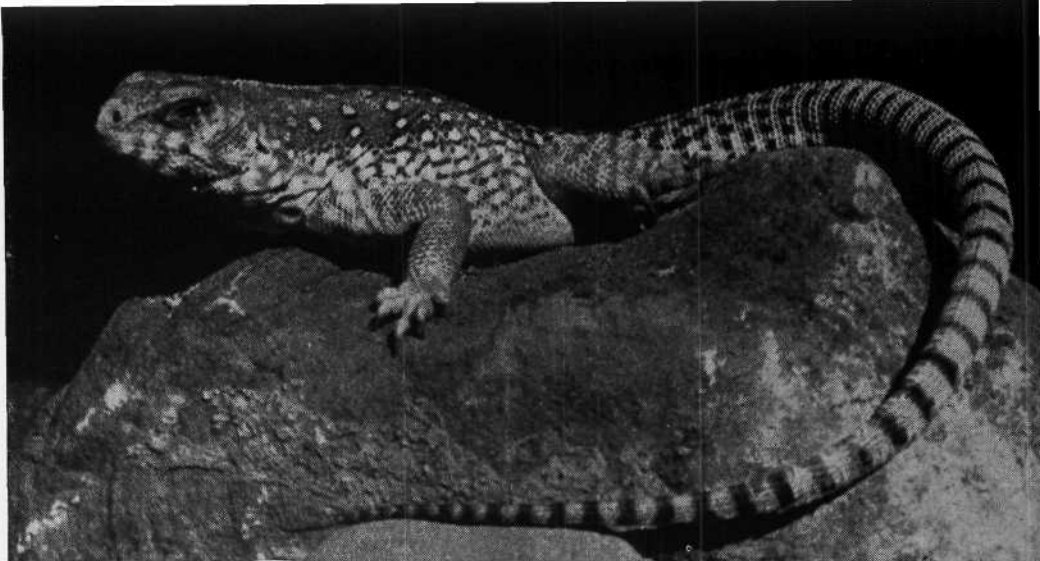
*Below—His armor plate is adequate protection for the Desert Tortoise. His habit of napping during heat and cold protect him from extreme desert temperatures. Harold Weight photo.*

*Besides his earth-color and habit of hibernation, the Chuckawalla has one of the most startling forms of protective adaptation. Norton Allen photo.*





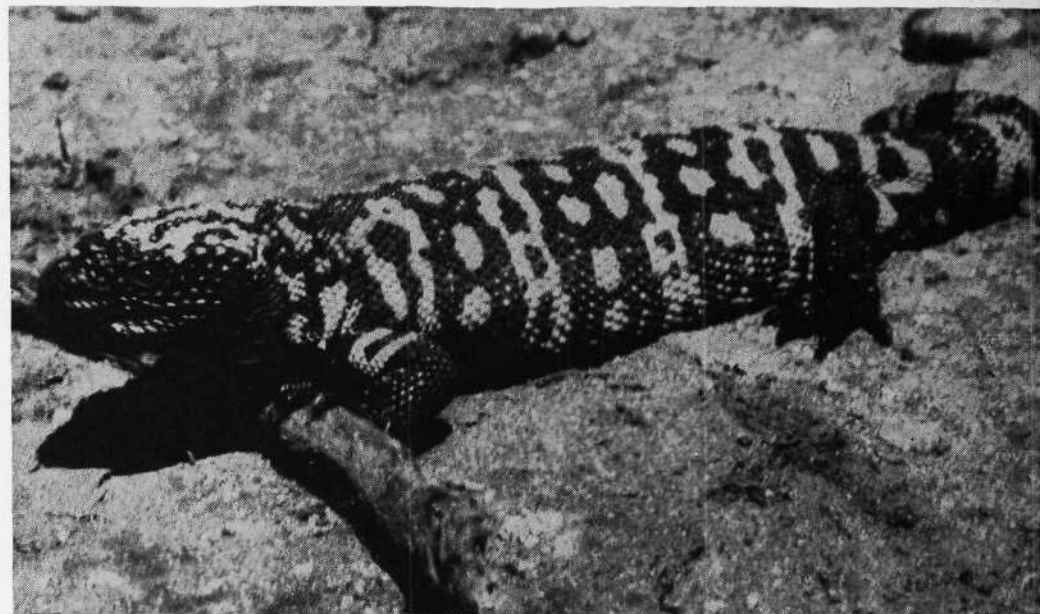
*Besides an effective coat-of-mail, the varied diet of the lizard contributes to its successful survival on the desert. Leopard Lizard, pictured here, eats crickets, grasshoppers, flower petals, leaves. Leonard Richardson photo.*



cactus forests, thorn scrub and sandy wastes. In this saguaro association of central Arizona, a fascinating society of bird citizens lives together with an unusual degree of communal harmony. In apartments excavated from the giant cactus by gilded flickers and gila woodpeckers, reside also elf owls, pygmy and screech owls, crested and ash-throated flycatchers, desert sparrow hawks and western martins. Their tenancy illustrates the maximum use made of the "upper story" of the region's limited flora.

### Kangaroo Rat

A criss-cross maze of elfin trails and runways, and a honeycomb of holes, passages and burrows testify that at night many a sandy waste becomes a bustling center of kangaroo rat activity. The smaller burrowing rodents have been eminently successful among mammals in populating the waterless desert. Many are both summer sleepers and manufacturers of their own moisture. From seeds gathered into capacious, hair-lined pouches, this banner-



*The Gila Monster's poisonous bite serves him as protection, despite his conspicuous appearance. Clark H. Gleason photo.*

tailed sprite of the night secures sufficient body fluids through the magical processes of metabolism whereby food starches are changed into water. The little fellow's health program calls neither for drink nor perspiration. Together with wood rats, pocket mice and similar animal chemists he survives rainless periods of three to five years without discomfort. As with pocket mice, the skulls of kangaroo rats enclose large air chambers that constitute important aids to acute hearing underground.

### Western Mourning Dove

Due to its powers of swift long-range flight, the western mourning dove has been little troubled by the problem of thirst. An unspecialized and cosmopolitan species, it nests as readily in low, fiercely spined cholla as upon the high arms of a cottonwood. It chooses the earlier spring months in which to rear its brood. Altitudinal migration, or retreat to verdant stream borders, are ways employed by the more versatile and wide-ranging of the

*This Diamondback was photographed on outskirts of Bumble Bee, north of Phoenix, Arizona. His defensive and offensive characteristics are well known.*



desert's fauna to escape parching summer heat.

### **Cactus Wren**

Sportily dressed and of uncommon size for a member of its drab family, the cactus wren has reversed the usual dwarfing of desert species and prospered by mastering a difficult environment. This individualist encounters little competition from other birds on the scorched, shimmering cactus-creosote plains and low foothills where it thrives. In the photo, a streaked and speckled cactus wren feeds her brood in the skillfully woven, funnel-shaped nest in the spiny armament of the jumping cholla.

### **Palmer Thrasher**

The Palmer thrasher also relies upon the bristling daggers of a cholla fortress to guard her nest. But the usual business of these grey-brown birds is upon the gravelly ground, turning the flinty rubble, probing and digging in the scant shade with decurved, pick-axe-like bills. Few insects hiding on the desert floor escape the search of these dextrous tools perfectly adapted to the thrasher's work.

### **Young Abert Towhee**

Devouring insect pests on leafy floors of cottonwood groves, mesquite thickets and verdant river borders of the Southwest is the career awaiting the young Abert towhee pictured in the photo. These green paradises not only serve as a refuge but owe much of their vigor to such diligent caretakers of the underwood. The busy rustling of towhees in brown leaf-carpeted of these oases is one of the subdued and contented sounds which evoke nostalgic memories of them. The towhee's habitat is a restricted one, for it is not a true dweller of the arid desert.

### **Long-Eared Kit Fox**

Silent-footed grey ghost of the night, the little kit fox or desert swift patrols the wide reaches of the most desolate wastes, and everywhere, if not ruthlessly trapped, keeps destructive rodent populations within bounds. The long-eared or desert kit is a size larger than his relatives of the Great Plains, and has been bleached to a decidedly paler hue. Perhaps a stronger, larger, swifter animal developed here under adverse conditions for the reason that a desert predator must range farther, strike more surely at less abundant prey, and withstand the attacks of more desperate enemies. The skillful little hunter pictured in this article wins his living from the torrid, barren sink of Death Valley, California.

### **Western Black-scaled Lizards**

From rocky strongholds on the flanks of desert ranges the western black-scaled lizards look down upon the buff-colored

basins, grassy yucca plains and cacti-clad reaches of the Southwest. The sun-loving black-scales in the photo were not disturbed even by the photographer at close range. They inhabit rocky ledges of the Chiricahuas in the southeast corner of Arizona.

### **Chuckawalla**

In brown or grey-black hide, hanging loosely in wrinkled folds about his shrunk-en form, that sleepy old philosopher of the rocks, the chuckawalla, crawls unsteadily out of his winter bedchamber to soak in the spring sunshine. Yet he is generally quick enough to reach a crevice and swell up tightly in it before most enemies can seize him. He flourishes upon a drop of dew or the moisture of flower petals, where others would wither in the heat. And he has that proper mental attitude that will keep him traveling, though clumsily, down the desert centuries when man has long been a forgotten trespasser of the wastes.

### **Desert Tortoise**

Only an occasional coyote is likely to dull his teeth upon the plated armor of that interest-exciting ancient of the wastes, the desert tortoise. This quaint reptile has few natural enemies and may be seen at all hours through April and May. His beaten paths are readily observed among succulent herb beds greening the flat stony mesas of southeastern California, southwestern Arizona and adjacent Nevada. Temperatures between 85 and 95 degrees suit him best. Apparently he lives to a great age and is indifferent to time. He naps during the blistering heat of midsummer, and secreted in rock crevice or sand burrow retires to hibernate through the chill of desert winter. An ability to forego food, his knack of storing water for lengthy periods in special reservoir sacs beneath his shell, and his need for climatic aridity at all times evidence a complete and long-lasting adaptation to desert conditions.

### **Leopard Lizard**

Reptiles of all kinds abound on the desert. for it is one of Nature's outstanding triumphs that this water-dependent group, first designed for amphibious operations, has developed into perhaps the most successful class of arid-land dwellers. The model pictured is a leopard lizard, a speedy denizen of the sands and washes of broad mesas and valley-basins. Crickets, grasshoppers, flower petals, herbaceous leaves and other sizable saurians contribute to its varied fare. In common with other dry-land reptilians, this iguanid lizard wears an elastic armor of scales admirably suited to absorbing heat from direct and reflected rays of the sun while preventing evaporation of vital body fluids from within.

### **Gila Monster**

The Gila monster's heavy, flexible armor and venomous bulldog bite justifies the leisurely gait with which he ambles over the pebble paved and rubble strewn floor of the desert. The Gila does not inflict the bite—unless you insist. His broad, forked, black tongue slithering out between rubbery lips, his hissing breath and the surprising swiftness of his guard give more than sufficient warning. On slight opportunity, the awkward, red-orange-and-black patterned body vanishes, demonstrating remarkable skill at concealment. But he remains the desert's unique experiment—a poisonous lizard that need not flee his adversaries. His typical home is the slopes of the Tanque Verde mountains in southern Arizona.

### **Desert Diamondback Rattlesnake**

Because small rodents are among the most populous forms inhabiting the land of the sun, the buff and tan desert diamondback rattlesnake doesn't need to worry about a living. Coiled in the shade of a creosote bush, he avoids the burning midday heat, then extends his working hours through the warm purple dusk into the silvery hours of moonlight when kangaroo rats and silky whitefooted mice play over the wind-rippled sands. While the warm breath of the night wind sighs gently among mesquite and palo verde, his small cousin, the 15 inch horned rattler or sidewinder actively roams the sand and stony desert pavement. The degree of this midget's unpopularity stems also from several other characteristics—the ability to strike without coiling, a malignant temper that induces him rarely to give warning, a habit of lurking unseen at the base of desert shrubbery within reach of the passerby, and an all too common affinity for camper's blankets.

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### **WOULD RENAME BOULDER DAM**

Coming as a surprise to western senate bloc, an amendment to flood control bill, being considered in July, was offered by Senator Albert W. Hawkes (R-N.J.), which would change federal designation of Boulder dam to Hoover dam. It was immediately opposed by Senator E. P. Carville of Nevada, joined by Senator Sheridan Downey, California. "We feel the world has come to know this dam as Boulder dam and the name itself typifies the greatness and massiveness of the West which we always wish to retain," Carville said. He added that similar discussions had been heard at times for more than 10 years and had always met strong opposition. Downey, terming matter "very controversial," suggested more study should be given before senate was asked to act. Hawkes finally withdrew his amendment.



By RANDALL HENDERSON

**I**N THE late summer of 1913 the meandering Colorado river threatened to change its channel and leave the intake of the Palo Verde water system high and dry. C. K. Clarke, chief engineer for the water district, decided it would be necessary to install brush jetties on the Arizona side to divert the current to the California side where the Palo Verde intake was located.

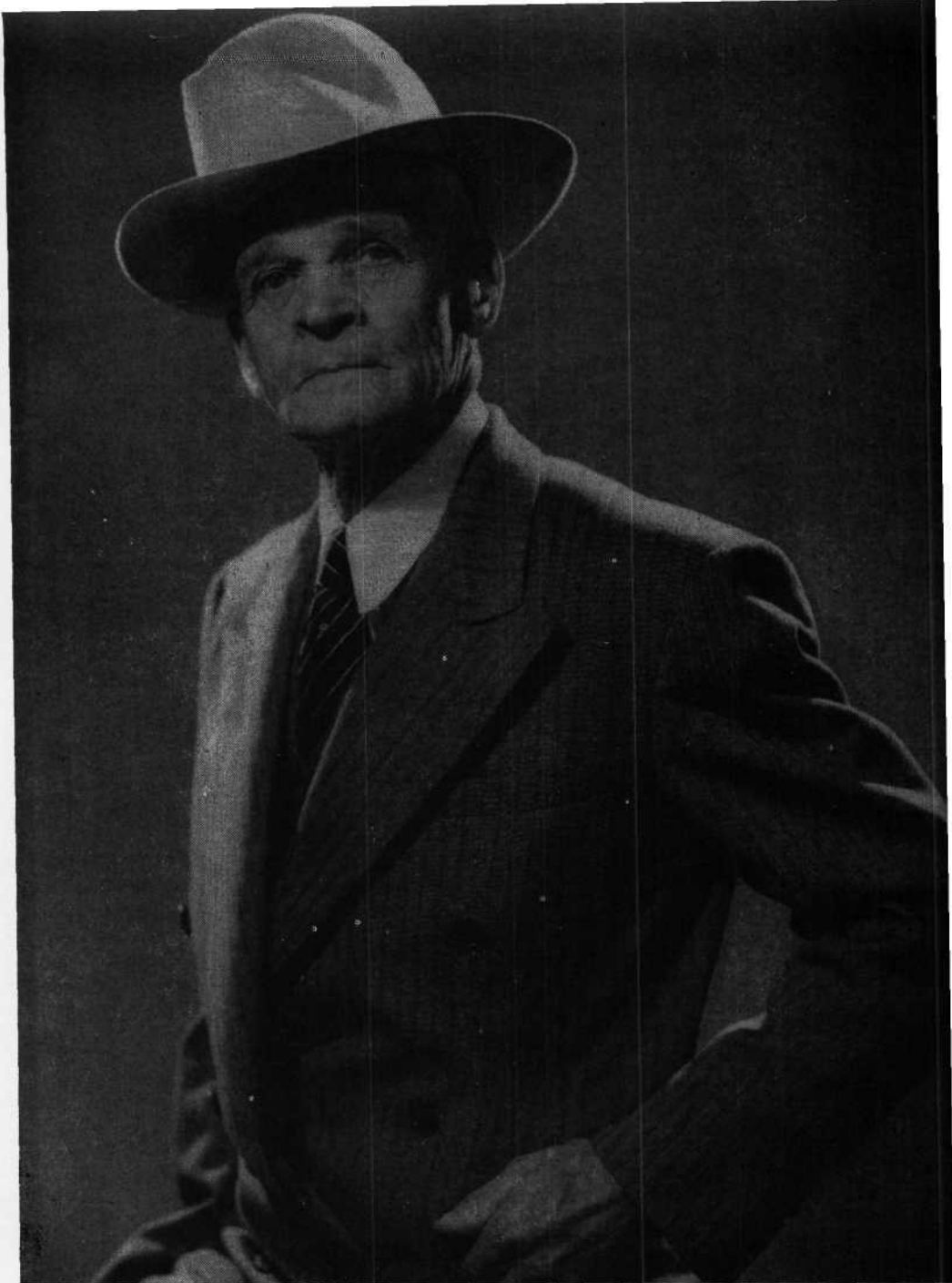
But the Arizona shore was in the Colorado River Indian reservation, and this made it necessary to go to the department of interior for a permit, involving a delay that might be disastrous.

Because of the urgency of the situation, Ed. Williams, then a director of the water company, volunteered to take a gang of workmen, smuggle them into the reservation, and get the control work underway while the application to Washington was going through the customary channels of red tape.

The river bottom on the Arizona side was a jungle of mesquite, cottonwood and arrowweed. To find a route over which it would be possible to transport men and equipment through that jungle was Williams' first job. And since I had been a member of the U. S. Land office survey crew which mapped the reservation the previous year, Ed. invited me to go along.

We crossed the Colorado on the Ehrenberg ferry and spent three days finding a route through the dense thicket of trees and brush. Part of the time we were horseback, part of the time on foot, and sometimes it was necessary to leave our horses and crawl on hands and knees. At night we rolled up in our saddle blankets and slept under the stars.

Out of those days together in that thorn-infested jungle developed a friendship which has remained warm to this day. And here is the story of the man who was my companion on that trip, and has remained one of my idols through the intervening years.



## *He Helped Combat Ol' Man River*

**W**HEN Ed. F. Williams went to Washington in 1930 to ask that \$1,000,000 be appropriated out of the United States treasury to compensate the landowners in Palo Verde valley for flood damage caused to their holdings by the building of Laguna dam, 70 miles down the Colorado river, officials to whom he made his appeal were not sure whether he was a colossal beggar, or just plain crazy.

"That's ridiculous!" exclaimed Dr. Elwood Mead, then commissioner of reclamation. "How could an 11-foot diversion dam in a river with a fall of one and a quarter feet to the mile affect the flood level of the channel 70 miles upstream?"

Phil D. Swing, congressman from the 11th district of California, Williams' home district, also was skeptical. But being a diplomatic congressman he did not express his doubt as bluntly as did Dr. Mead.



*This rock weir raises the level of the Colorado and keeps water flowing into Palo Verde intake just above. In the old days the same purpose was served less effectively by jetties extending out from the Arizona shore on the far side of the picture.*

"If you will show me how it would be possible for Laguna dam to cause broken levees in the Palo Verde valley, I'll give you what help I can," Swing assured him.

Before he had been in Washington many days, Williams saw he would get nowhere with his million-dollar request until he could prove to hard-headed engineers and indifferent congressmen that there was engineering data to support contentions.

So he became a daily patron of the Congressional library. He dug up old engineering reports from Egypt and India and Italy—some of them written two or three hundred years ago. It was necessary to have some of them translated into a language he could understand. For six weeks he read everything he could find about the hydraulics of a silt-laden stream.

He also found convincing proof from the records of the Colorado itself. For instance, the old adobe walls of the town of La Paz in Arizona opposite the Palo Verde intake had remained intact on the river bank through the highest floods on record since 1870. Then in 1914, four years after Laguna dam was completed, a comparatively moderate flood crest overflowed the

townsite and melted the walls to mere piles of mud.

When Williams finally appeared before the committees that were to consider his proposal, even Dr. Mead had been convinced there was good engineering authority to bear out Palo Verde valley's complaint.

Williams returned to Washington again in 1931 and 1932 to press claims of his neighbors in the Palo Verde water district. Before the grant was made, however, there was a New Deal in the national capital, the RFC was born, and the Palo Verde landowners eventually received the aid they sought through the refinancing of their \$4,500 000 bonded indebtedness at 25 cents on the dollar.

With the building of Boulder dam the danger of flood damage from the Colorado river ceased to be a problem to the Palo Verde community.

Ed. Williams' million-dollar errand at Washington merely was one of many tough assignments his neighbors have given him during the 36 years he has lived among them.

He was leader of the delegation which represented Palo Verde valley during

those highly explosive conferences when Los Angeles, Imperial valley and other claimants were dividing California's share of the water allotted to the state under the Six-States compact.

The Palo Verde delegates were not as strong in numbers or as eloquent in speech as some of the more powerful claimants—but they had two winning cards to play. One of them was a water filing on the Colorado river which was prior to all others in the lower basin. The other was Ed. F. Williams.

Williams had spent many years of his life on the cattle range where gift-o'-gab was neither a virtue nor even an asset of any great value. He doesn't go in for speech-making. He told the conference in a few words what his district wanted. Some of the others thought it was too much, and stormed and threatened. In the end they gave way to the quiet-spoken delegate from Blythe who refused to be stamped by professional oratory.

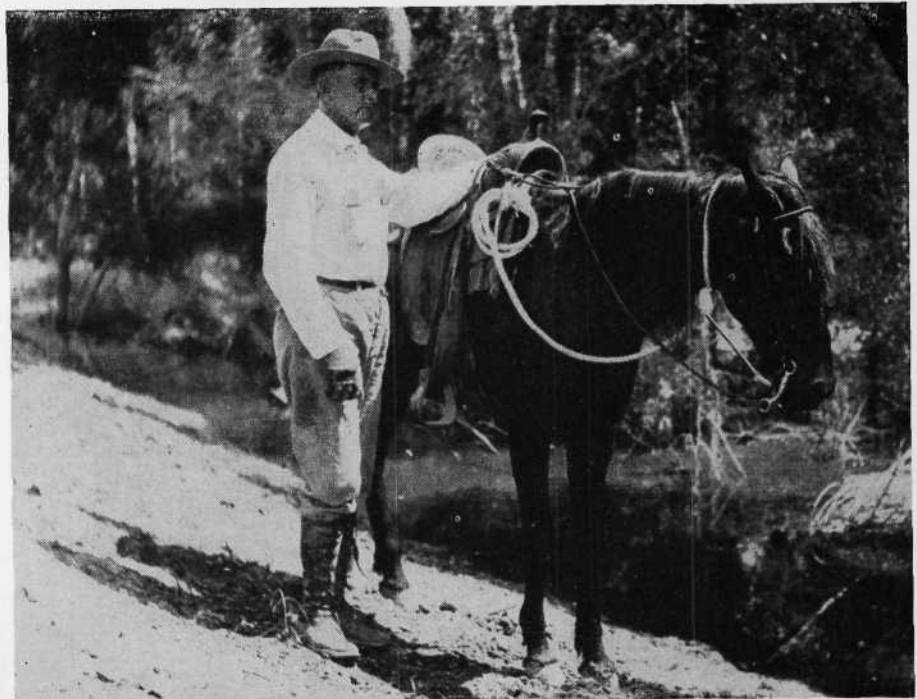
Ed. Williams is 76 years old, with clear blue eyes that still sparkle with the enthusiasm of youth. Since 1912 he has played a leading role in the public affairs of Palo Verde valley.



It is inevitable that a man so conspicuous in community leadership should be the target of rebuff and criticism. But Ed. Williams takes the bitter with the sweet, and never loses his quiet good humor. He is loyal to his friends and tolerant toward critics. His strength is that of a man who seeks neither wealth nor power for himself—and in whose heart there is charity toward all.

Williams has been on the frontier all his life. Born in Waverly, Iowa, in 1866, he

*This old ferry operated between Blythe and Ehrenberg before the present bridge was built across the Colorado.*



*C. K. Clarke, who helped keep the Colorado "in a straight-jacket" for many years. He is now dead.*

was 16 years old when his parents moved to Dakota territory in the heart of the Sioux reservation.

He was a rosy-checked youngster, none too robust in health. His playmates in Dakota were mostly Indian boys, and his determination to equal their agility in the field of sports soon developed his muscles to the point where he was a match for the best of them.

His parents had moved to Dakota when President Arthur opened part of the Sioux reservation to white homesteaders. The Indians resented the encroachment on their lands and their attitude became so threatening President Cleveland revoked his predecessor's order and restored the land to the Indians.

This brought hard times to the Williams family along with other settlers, and Edwin, now 19 years of age, decided to fulfill his boyhood dreams and go West.

The next few years were spent in west-

ern Nebraska and Wyoming, trapping, herding, riding range—anything he could find to do. He was a novice cowhand at first but his likable personality gave him work when more experienced men were idle.

His schooling had been cut short when his parents moved to Dakota and after two years on the range he became conscious of the fact that he needed more education if he ever was to rise above a \$30-a-month job.

To earn money for his school expenses he bought a trapping outfit and a winter's supply of grub and moved out into the uninhabited sandhill country of western Nebraska. He built a dugout and settled down for the winter alone with his traps and pony.

He had collected a sizable pile of coyote furs when the damp air of his crude dwelling brought on rheumatism. His condition became so bad it was an agonizing experi-

ence to move out of bed for food and water. Two horsemen stopped at his camp one night, and he persuaded them to lift him on his horse and guide him to the nearest cow camp, 40 miles away.

To this day Williams believes the men were cattle rustlers, but they were charitable enough to escort him along the trail to within view of his destination where they bade him goodbye and disappeared. It was many weeks before he was able to walk. When he returned to his dugout he found his pelts water-soaked and valueless.

But his determination to go back to school was not dampened. The next winter he outfitted for another trapping season. This time he went up into the Big Horn country. But the fates were against him. He was caught in a blizzard and frozen so badly before he was found, the doctors wanted to amputate his legs. He fought against the idea and finally compromised with the loss of the toes on one foot. It was five months before he was out of bed and a longer time before he could mount his saddle pony without help.

"I did not give up the idea of getting an education," Williams explains today, "but my immediate problem was to recover my health and get a job to repay the debts that had accumulated."

That was in 1887. When he could ride again Williams went to Buffalo, Wyoming, where he worked for several months with a cattle outfit. Then he and Buck Tay-

lor took the old Mormon trail and headed for Nevada and went to work on the ranch owned by Governor Sparks.

A few months later Williams took the trail again, crossed the Colorado river at Lee's ferry and found a job near Flagstaff, Arizona. He spent the next eight years around Flagstaff and Williams, eventually becoming range foreman under George Thornton, manager of the Bill Williams Cattle company.

The old urge for an education returned and he spent much of his spare time reading and studying correspondence courses in English and grammar.

One winter he took a herd of 2000 steers down into the Salt River valley. That was before Roosevelt dam was built and he became interested in tracing the prehistoric irrigation system and the Indian ruins found there. Some of his conclusions regarding the mysterious Hohokam people have been borne out by recent research work of archeologists.

In 1902 Williams formed a partnership with Ed. A. Tovrea, cattleman and packer, and made frequent trips into Chihuahua to buy livestock. On these trips he became acquainted with Col. Wm. C. Greene who was interested in the Sonora Packing company at Cananea. Later a three-way partnership was formed by Tovrea, Greene and Williams. The firm prospered at first and had a high financial rating.

Then came the revolutionary outbreak in Mexico and Greene lost his concession. The United States was in a money panic at the same time and the partnership ran into financial difficulties. The net result was a reorganization in which Williams signed over his interest to his partners in return for the cancellation of certain indebtedness.

In the meantime another Arizona cattleman, Frank Murphy, had taken a lease on 43,000 acres of the old Thomas Blythe estate in Palo Verde valley and was running cattle there. Murphy and Williams had been friends of long standing through their cattle dealings in Arizona.

In 1908 Murphy and Hobson brothers and a group of California associates closed a deal for the purchase of the Blythe property. The old Blythe irrigation system was restored and extended and the land placed on the market for settlers. Murphy induced Williams to buy 160 acres and become a farmer. Later Williams filed on a homestead which he still owns.

Murphy and the Hobsons, operating as the Palo Verde Land and Water company, found a ready sale for the lands in their newly opened irrigation project, and the townsite of Blythe was laid out.

In the spring of 1912 the Colorado river broke through the protective levees at the

upper part of the valley and overflowed many thousands of acres of newly reclaimed land. This disaster hastened the climax of a feud which had been in progress between settlers and the holding company for many months over the management and financial set-up of the irrigation project. Murphy and the Hobsons had formed a subsidiary corporation, the Palo Verde Mutual Water company, to manage the water system, reserving a large block of the unsold water stock for themselves.

The settlers objected to the terms of the contract between the land company and the water company, and resented the fact that the control of the water company was entirely in the hands of the Murphy-Hobson group. They felt they should have a voice in levying water assessments and selling water stock.

A general meeting between representatives of the two groups was held at Hotel Blythe in the fall of 1912. In the compromise settlement reached at this time the farmers were granted the right to name one member of the board of five water company directors—and Ed. F. Williams was the unanimous choice for the post.

Thus began Ed. Williams' active leadership in the public affairs of Palo Verde valley. He was put on the board to represent the farmers who were his friends and neighbors—and he has been fighting their battles from that day to this. He has not always been on the winning side in the many controversies which are inevitable in a pioneer community—but no fair-minded person ever has raised a doubt as to Ed. Williams' integrity, or his loyalty to the cause which he believed to be just.

One of the first things Williams asked for when he went on the water board was an engineer qualified to strengthen the river-front protection and plan an efficient canal system.

Frank Murphy said an engineer was a needless expense—anyone with common sense could build levees and plan irrigation works. Williams fought for his idea—and in doing so incurred the lasting enmity of his old-time friend from the Arizona range.

Williams finally was empowered to employ an engineer. He induced C. K. Clarke, who had been on the firing line in closing the break which threatened to inundate Imperial valley in 1905 and 1906, to take the job.

"I am looking for an engineer who isn't afraid to tell the whole board of directors to go to hell if he thinks they are wrong," Williams told Clarke. That kind of a job suited C. K. Clarke perfectly and he went to work. Williams worked with him, day and night, and together they planned and rebuilt the entire canal system.

Williams served on the water board 10 years, much of the time as president. At one time he also was on the drainage district board of directors and the levee district board. He knows the Colorado river and its vagaries as well as most of the veteran river engineers.

He was married in 1912 to Miss Edyth Everitt of New Mexico. Mrs. Williams was an artist of more than usual ability and the walls of the cabin they built on the top of a sand dune at the homestead are hung with many of her paintings. She died in 1934. Their one son, Edwin Jr., was graduated from Stanford university and is now assistant to the librarian at Harvard university.

In 1923 while mowing hay on his ranch, the team of horses Williams was driving ran away and he was thrown into the sickle. As a result of this accident his right arm was amputated below the elbow. But such a handicap means little to Ed. Williams. He had to give up farming and today he is assessor and land agent for the Palo Verde Irrigation district and secretary of Blythe chamber of commerce.

He likes to write, and has contributed short sketches on his frontier experiences to a number of publications. He has a portable typewriter with a caps keyboard and pecks away with his one hand, keeping contact with friends in all parts of the Southwest.

Williams never has amassed much wealth. He couldn't. He will fight for the interests of his friends and neighbors—but not for dollars or glory for himself. He belongs on the desert. He would be a babe in the woods in the fierce competitive struggle of the modern city.

He is an unusual combination of idealist and practical diplomat. He held his own in the rough-and-tumble days of the West of a half century ago—but his weapon was not a six-gun, although he could use one very handily. He fought with the quiet persistence of a man with infinite courage in his heart and a faith that believes there is some good in the heart of every human being.

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## VILLAGE TO "GO WESTERN"

Palm Springs season of 1946-47 will open with most elaborate celebration yet held, when Western Week is staged from October 21 to October 24.

Members of Los Compadres club are working on plans, which feature championship rodeo and gymkhana, kangaroo courts, parade, dance and fashion show. In announcing plans, officials of the club said they again would emphasize the "Go Western Every Saturday" theme, which was carried out in the Village the past season.





*This photograph of Dr. Park was taken in his hobby room as he examines one of the many rings he cut from single gem stones.*

## *His Legacy Was a Gem Onyx Field*

By JOHN HILTON  
Photographs by Harlow Jones

**T**HROUGH the grapevine of the rockhound fraternity I had heard of Dr. William S. Park long before I went to Las Vegas, Nevada. I knew he was one of the veteran collectors of the Nevada desert, but it was not until I stopped at the chamber of commerce to get his address that I learned of his many other accomplishments. There I was told

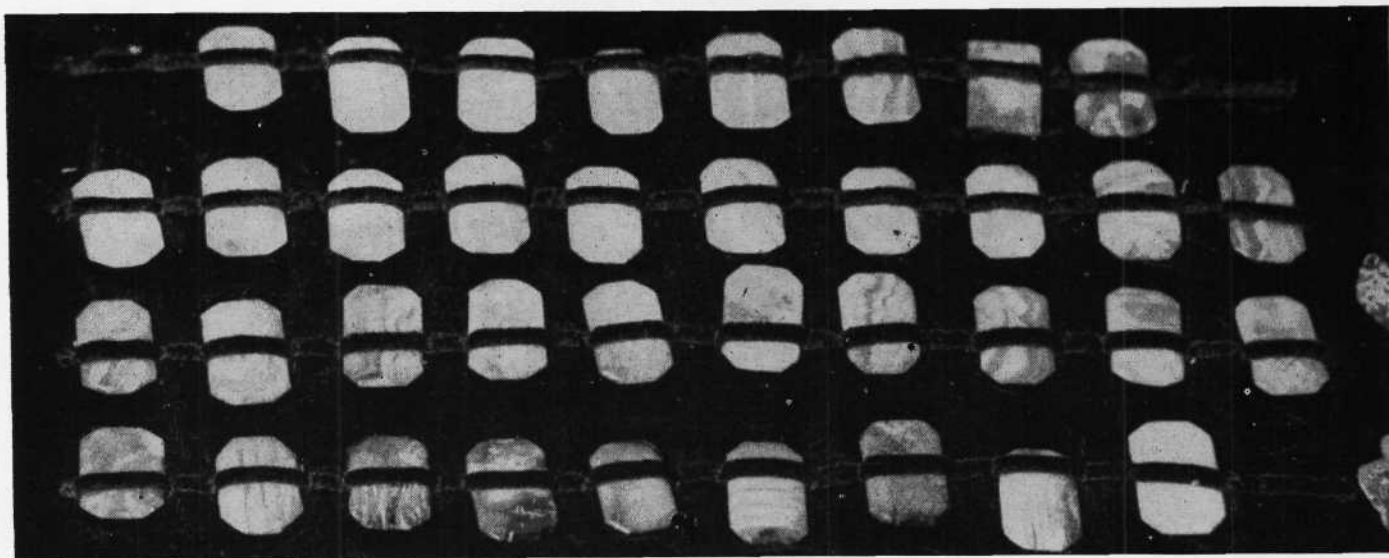
that he not only was a collector, but an expert gem cutter, a leader in civic affairs, an authority on Nevada history and a collector of both ancient and modern Indian crafts.

As Harlow Jones and I crossed the lawn to the veranda of the Park home I spied the first signs of the collector. Near the steps were stone mortars evidently brought

Dr. William S. Park of Las Vegas, Nevada, has passed on to his final reward, but before his death last February he mapped for John Hilton and Desert Magazine readers a field where abundant quantities of gem onyx are to be found. Here is the story of a man who played a leading part in the development of one of the Southwest's most lively frontier towns.

in from some far canyon or mesa. The big house had a friendly look, and we soon discovered this was no deception. When the door swung open we were met by the warm smile of Mrs. Mary Park. She showed us through the hall to her husband's hobby room.

Dr. Park arose to greet us, and smiled as our eyes wandered around the lovely room.



*Gem or agate onyx sets in Dr. Park's collection.*

There were fine old Navajo rugs and pieces of ancient pottery. Frames of Indian arrowheads and spearpoints decorated the walls. Along two sides of the room were arranged his collection of cut gems. I was impressed by the fact that they were not in locked glass cases. Gem collectors cannot truly appreciate a polished stone unless they can hold it in their hands and turn it about in the light. Dr. Park, like the Chinese jade collectors, believes that part of the beauty of a gem is in the "feel" of it.

One by one he began calling our attention to various items in the collection—spheres of agate, jasper, crystal and jade; cubes and pyramids made from many kinds of desert gems; cabochons by the hundreds—every color of the rainbow. Now and then he would pick up a piece as he talked, caress it with his hands and hand it to us

to examine. Every piece was a labor of love. It was easy to see that he never had considered the hours he had spent in his lapidary as other than that. A man would never do that quality of work for money—nor could he make a living at it if he did, in our competitive world of today.

His skill as a dentist in his earlier years had trained his hands and eyes to precision and finish seldom attained by ordinary lapidarists, amateur or professional. I am convinced that the outstanding examples of the lapidary art in this generation will come from the shops of the advanced amateurs rather than the professional cutters no matter how proficient and experienced. Some of our best amateurs are doing work to match that of the ancient cutters who were employed for life at the courts of oriental monarchs. Gem cutting then took no account of time or cost—the only thing

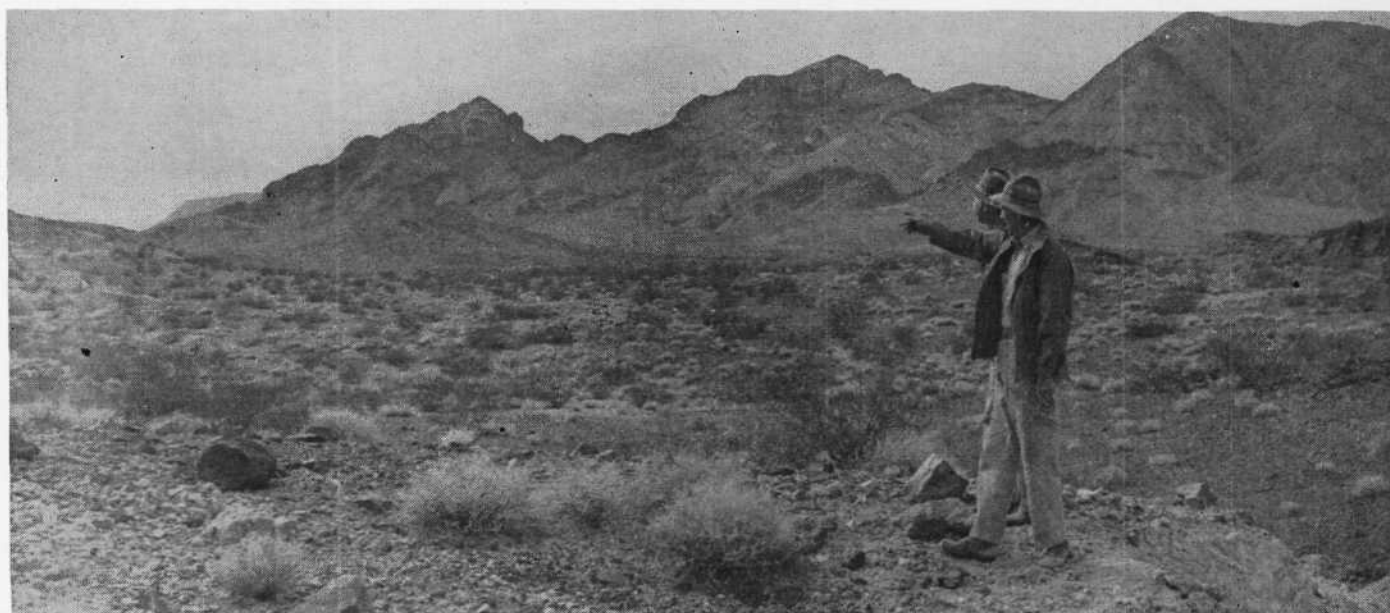
that mattered was beauty and perfection.

The cabochons were arranged in groups from different collecting areas in Nevada and the doctor had cut the stones in series from each of his favorite gem fields. One of these series was especially attractive and Dr. Park informed us there was practically an unlimited supply of this material just a few miles from the huge Basic Magnesium plant at Henderson between Las Vegas and Boulder City.

We asked if we might log this field as a mapped trip for Desert Magazine readers and he was more than glad to share it with other rockhounds. The doctor had appointments the following day but he agreed to arrange with his friend Bill Brown to show us the area where collectors can gather nicely banded and colored silica onyx to their heart's content.

The word onyx has been misused in

*Looking toward the hills in which the onyx outcroppings are found.*







*Bill Brown is looking for material for a pair of bookends at one of the gem onyx outcroppings.*

modern times. Originally it was a term covering certain banded types of agate with contrasting colors. These bands either were perfectly parallel or so nearly so that they usually were cut in the form of gem cameos, using one or more colors for the head or figure and a color underneath for the background. Then the Germans found there was a market for black agate. Rings became popular with sets of this material on which were set monograms, lodge emblems or diamonds. Natural black agate was scarce but the gem cutters of Oberstein and Idar long ago discovered that agate could be dyed and that the porous layers would take colors to suit their purposes.

Under the name of black onyx, thousands of pounds of dyed Brazilian agate was cut and sold to the world markets from these early gem cutting centers. The agate was first graded by experts who could look at a piece of material and tell whether it would take a dye or not. Then it was sliced on sand saws. These saws were huge affairs operated by water power. They were

run in gangs, cutting through hundreds of pounds of agate at one setting. They were slow because the abrasive material was nothing but sharp sand and mud carried on the soft iron blades, but they were inexpensive to operate as they needed little attention and the power cost nothing. The slices then were soaked in honey or sugar water for months or even years and then dropped into sulfuric acid. The resulting carbon from the sugar breakdown made the black color. Then the gems were finished by the crude but cheap methods of the time—much of it by child labor.

The terms "Cave onyx" and "Mexican onyx" apply to a totally different sort of material. These are cool water deposits of limestone (aragonite) with impurities of iron which gives them colorful bands and stripes. This material is too soft to be used as a gem stone to any advantage but most people are familiar with it in the form of desk stands, soda fountain counters, table tops and other decorative objects. Many readers will remember the fad for Mexican

onyx gear shift balls which came to America in the 'twenties. Shops were set up in California to make these novelties by the thousands from the famous onyx mines of Lower California.

The onyx near Henderson, Nevada, as Dr. Park pointed out, is similar in coloring to the finest Mexican onyx but instead of soft aragonite it is agate with a hardness of seven. It makes excellent ring stones and the doctor had some beautiful link bracelets and many larger objects made of it. The colors run through the reds, oranges and yellows against white and bluish white backgrounds.

We thought that we had seen about enough for one evening when Dr. Park ushered us through another door into an adjoining room. Here was the most unusual gem cutting shop I ever have seen. I have watched Zuñi Indians sit in a doorway and drill turquoise with a hand operated bow drill. I have seen Chinese jade carvers plying their laborious art with a foot operated flexible shaft and a ruby

point for a cutting tool. I have seen hand-made cutting machinery operated by wind-mills on desert dry lakes and diamond cutting shops where the last word in technical equipment was at the disposal of the lapidarists, but this was something else.

Every piece of machinery was shining and painted and clean. The guards were all splatter proof. Everything was in its place and free from dust. Neat shelves lined the walls with slices of rough or partially cut materials all properly labeled.

The place fairly sparkled. One almost expected to see men in white with gauze bandages over their mouths, for this room at first glance reminded me of an operating room or technical laboratory rather than a workshop for a gem cutter. I thought of my own cutting shop at home with its dust and confusion, and secretly resolved to do something about it when I got home (but I haven't gotten around to it yet).

Harlow and I left the place feeling better for having met this fine hobbyist and his cordial wife. We agreed between us that here was a man who really was getting the most out of the late years of life.

The next morning we went to the home of Bill Brown, the gem dealer. He and his wife took us out in the back yard and showed us a pile of the silica onyx from the field we were to visit. This material can be obtained, with a little patience and work, in sizes suitable for anything from ring sets to large bookends, and the color combinations and markings have a wide and pleasing variety.

We turned off the Boulder City road at a point 1.7 miles beyond the center of Henderson (townsite for Basic Magnesium plant), and headed for the hills to the southwest. The road was a typical desert trail—a bit rough but not sandy or rocky enough to give the average motorist any trouble. At a point 4.6 miles from Henderson we stopped the car and climbed the first low hill to our left.

The field was just as Dr. Park had described it. Low rolling brown hills on the left of the wash were sprinkled with agate and chalcedony. There were outcroppings of the better grades of silica or agate onyx. It didn't take long to discover that there was a good deal of the material on the surface. We walked some distance and never got out of sight of good cutting material. Mr. Brown assured us that this deposit runs for about two miles and that here and there are scattered groups of geodes and chalcedony roses as added attractions. I am sure that Dr. Park has given the rockhound fraternity a gem location that will bring pleasure to thousands over a good many years.

This trip to the onyx field was made last winter, and while the story was in preparation for Desert Magazine word came that Dr. Park had taken his last rock hunting trip. On February 24 he accompanied his friend Bill Brown and other members of the Southern Nevada mineralogical society on an agate hunting expedition about 15 miles east of Boulder City near Detrital wash. After lunch he complained of a pain around his heart and Brown rushed him back toward home as fast as the rough roads would allow. Brown stopped at the checking station at the west entrance to the dam and asked the rangers to phone the Boulder City hospital to have a doctor ready. Dr. Park lived only a few minutes after he was admitted to the hospital. The Nevada desert had lost a great and true friend.

Dr. Park came to Las Vegas as a young man of 28 in 1907. He was one of the first professional men in the then struggling community. His services as a banker and dentist, as a leader in community planning and building, as active participant in civic and fraternal organizations, contributed much toward making Las Vegas the thriving city it is today.

His work at the Gypsum caves with Dr.

Harrington helped open up new pages of the prehistory of Nevada and North America. Later his excavations at Lost City uncovered and preserved for science and for Nevada priceless relics which probably would now be hopelessly lost under the waters of Lake Mead but for his efforts and enthusiasm.

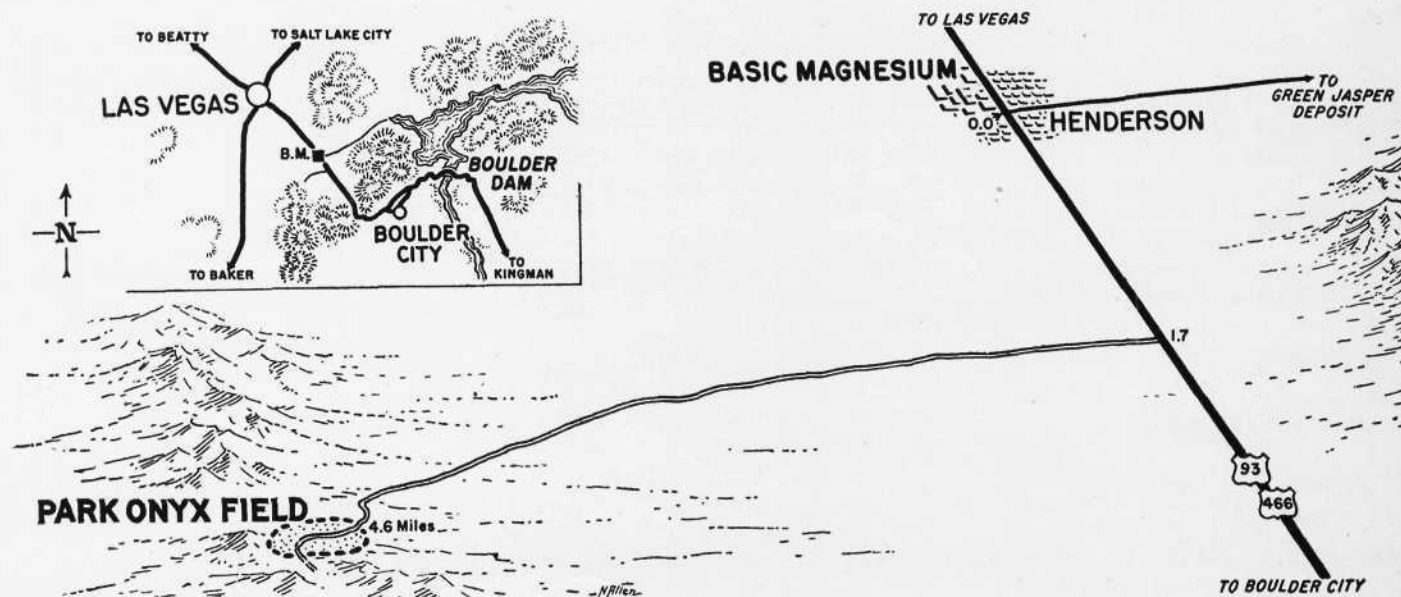
His unfinished plans included two new schools for the city he loved. In one of these was to be a room where his priceless Indian relics and cut gems could be placed on permanent display. The foundations for these plans were so well laid that I am sure they will come true when materials again become available.

In the meantime I propose that we of the rockhound fraternity honor the memory of the kindly doctor by calling this field to which he has guided us the Park Gem Onyx field. I can think of no more fitting way to remember a man who went gem hunting on the final day of his life and whose last words, spoken to a nurse in the hospital, were, "It has been a beautiful day."

### DEDICATE MORMON MONUMENT

This is the Place state park, planned to be one of Utah's greatest historical, recreational and scenic areas, extending 30 miles northeast along Old Mormon trail from Salt Lake City to Henefer, was dedicated July 24 as high point of Pioneer day celebrations in the state. First stone was laid for the \$300,000 monument at mouth of Emigration canyon.

"It is my hope that this park forever will preserve the memory of the pioneers and the high ideals for which they stood," Gov. Herbert B. Maw said in his formal proclamation setting aside the park area, which includes parts of Salt Lake, Morgan and Summit counties, comprising the most rugged and scenic section of the entire trail. The trail also served Overland stage, Pony Express and other groups.







*The Gridiron-tailed lizard is one of the many harmless creatures on the southwestern desert. He doesn't object to having his picture taken if the photographer stalks him very slowly.  
Photo by the author.*

## Streamlined for Speed . . .

By RICHARD L. CASSELL

**H**E'S A SPEEDY little fellow, this Gridiron or Zebra-tailed lizard of the desert. The scientists call him *Callisaurus ventralis*. When startled, the interval from a rest position to full "flight" is so instantaneous as to make one think of a dart shot from a blow-gun.

Confronted with an obstacle, he takes off through the air like a ski-jumper, and lands on the run. However, when courting season comes he becomes much more approachable. He has other things on his mind. He and his mate stage a graceful and rhythmic dance back and forth before each other "in curious frolics like an amorous pair of mocking birds," as Edmund C. Jaeger, describes it.

It is interesting to note that creatures

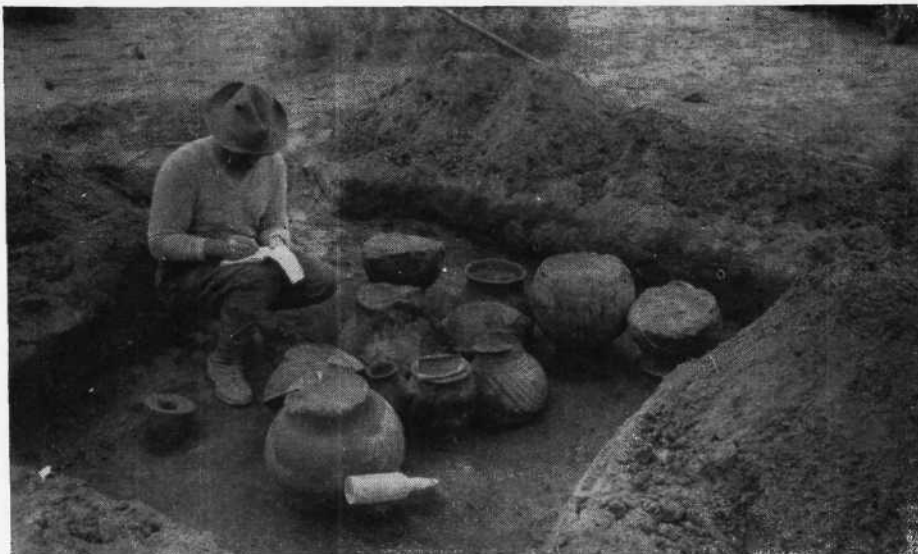
which fly (with the exception of the bat) and creatures that are swift on foot are equipped with superior eyes. This is true of the gridiron-tailed lizard. His eyes are large, for a lizard, and lustrous black. This extra keenness of vision is invaluable to this speedster in spotting an obscure hole or crevice in the terrain he inhabits. He will scoot along the surface and then dart underground as though he knew that particular hole to be there all the time. When indulging in such a sprint, the tail with from four to eight black and light-grey bands is held high in the air to avoid the possibility of its dragging in the sand and thus offering frictional resistance.

This agile saurian is not as difficult to photograph as might be expected. If the

camera-man makes no abrupt movements, it is possible to stalk within three or four feet of the little fellow.

This lizard lives on foliage, insects and bugs, and apparently has no scruples against cannibalism. It will swallow a smaller lizard alive. The body of the lizard has a high degree of protective coloration, but the bands on its tail, like those on a rattlesnake next to the buttons, give it a marking that is easily distinguishable.

This interesting and colorful reptile is distributed over the sandy plains and gravel washes of both the Colorado and the Mojave deserts, and is also found abundantly in southern Nevada and Utah. It hibernates during the winter months.



"After an hour's troweling and brushing we uncovered a cache of 14 pottery vessels. It was one of the greatest discoveries of historic Pima pottery ever made."

## We Found the Hidden Shrine of Old Makai

"Don't try and dig up that Makai," the old Indian woman told the archeologists, "and if you don't I will direct you to a place where you can find more pots than there are fingers on your hands." And this was the clue that led Richard Van Valkenburgh and his associates on a field expedition to one of the largest caches of ancient Pima pottery ever found in place. For the archeologists kept their word—and the Indian grandmother kept hers.

By RICHARD VAN VALKENBURGH

SOME years ago Ben Wetherill, archeologist for the Los Angeles museum, Jack Snow, photographer, and myself began excavation of the 1000-year-old Gila Butte site of the ancient desert folk whom the Pima call the *Hohó k aam*, or All-Gone-People.

Soon after we started work an old Pima came to visit. Announcing himself as Juan from Bapchule, a rancheria across the Gila river, he protested, "This will bring no good. For you are stirring up the spirits of the Hohó k aam." But as we later discovered, disturbing the All-Gone-People wasn't what really worried the Pima elders.

After Juan's hint I had a feeling that we were being watched. Late one afternoon I thought I detected movement behind a nearby saguaro. Slipping away I skirted the high trash mounds in a wide half-circle. My hunch was right. An old Pima

woman in a ragged black dress watched Ben and Jack's every move!

In time we grew accustomed to being shadowed. Finally we labeled the old woman "The Crow." For when the wind blew and her ragged old sleeves flapped, she looked just the part—an old black crow. But even when we were watching her, she never came into the open.

But there was never a move made, particularly toward the gap in Gila Butte, when we were not under scrutiny. Finally I told Ben, "There's something up on that butte. One of these days I'm going up there and find out what this is all about."

One brisk winter afternoon just before Thanksgiving, Frank, a Pima boy from the nearby settlement of *Stá tannyik*, Many Ants, came to visit. Having considerable pottery exposed I was taking my turn as guard while my partners went into Chandler, Arizona, to get the mail.

Just after the sun slid down behind the peaks and a great serrated shadow projected a pattern out into the sunlit grey-green of the desert I saw The Crow hobbling up the path that led to the gap in the butte. Watching Frank closely I finally questioned, "Now I wonder where she's headed?"

Frank took his time to answer before he said, "That's *Tash o' bak*, Sun Leaves. She and her old husband live down in the field below your camp. People say that she is so old that she was born before the Pima massacred the Yuma near Gila Crossing in 1857!"

After another long wait Frank surprised me as he got to his feet, "I know where she's going. Follow me."

Moving toward the Gila river we cut her trail. Then we turned and started to pick our way up the northern slope of the east butte. From a point almost hidden by a clump of catsclaw we watched. In a few moments the old woman walked out of the shadows and into the sunlight that still brightened the upper part of the butte.

Frank whispered, "See that ring of rock just below us. With the large boulder in the center. Right where the old lady is heading. That's *Mavi' va' ak*, the shrine of the Lying Puma. Some of our people call it *Tci apatak*, the place of the Mortar."

She entered the shrine. Fumbling with her dress she moved toward the center rock. Stooping, she laid something down. Then in the deep silence of the desert where the wind didn't even whisper, we heard the thin treble of her voice as she seemed to chant.

In a few moments she finished. Then she went up the trail. Motioning to me Frank whispered, "Let's follow her. She's heading for the divide in between the buttes. Then she can see toward the mountains where they say dwells *Si oho*, the Elder Brother."

As we climbed toward the summit the silence of the world was broken only by the tick-tack of a Gila woodpecker as he drilled out a new home in a saguaro in the desert below. Then just as we broke out of the jungle of cholla and rock a voice came down to us:

"You might as well come out in the open!"

There she sat on a rock. Her eyes were transfixed on the red afterglow of the setting sun as it tinted the lavender-blue heights of the Sierra Estrella. Without stirring she spoke, "So you boys have been spying like Apaches on an old Pima woman who came to pray for a sick relative."

She then turned. For the first time I saw her face clearly. Lighter than the average Pima's its color and texture made me think of something I'd seen somewhere before. Then I remembered—it was like the skin that stretched over the gaunt jaws of a



Basketmaker mummy I had seen in northern Arizona.

But her eyes were bright! And they were jet beads deeply set in the ovaloid frame made by her black kerchief as she poked her stick at Frank and chided, "Don't you know better than to bring that white man up here. Haven't you seen him digging up the All-Gone-People. Now he will want to dig out that old *Makai* or medicine man that sits under the rocks of *Mavi' va' ak*, the Lying Puma."

My mind turned a somersault. Had Sun Leaves let something slip? Was that what they were really guarding—the sitting burial of a Hohó k aam medicine man under the shrine? If so, it was contrary to all the archeological information we had obtained from the Gila Butte site. For we had found nothing but cremations!

These thoughts were interrupted as the old lady poked her stick at me, "I see what's in your eyes. Don't try and dig up that *Makai*. And don't steal what I left down there in the mortar. I'll know! For with an old man, from Bapchule, I guard the shrine of *Mavi' va' ak*!"

Then looking me straight in the eye for some time she finally said, "Don't bother our shrine. And if you don't, before you leave the land of the Pima, I'll direct you to a place where you can dig out more pots than there are fingers on your hands."

After the old lady left we went down to the shrine. The outer ring of small stones was some 15 feet in diameter. Entrances came in from the four cardinal directions. In the center, and on a slight rise, there was a cairn of rock piled against a larger

boulder. And in its top there was a cavity filled with offerings.

There was an assortment of nickels and pennies dating from 1906-1923. Then there were glass trade-beads. The tiny blue and red ones of translucent glass were easily recognizable as the type used by traders around 1800 A. D. And mixed with them was an assortment of the dime store variety.

Scattered through the rocks there was an abundance of Hohó k aam material

similar to that found down on our site. In addition to pottery sherds of the red on buff variety, there were fragments of worked shell. Outstanding among these was a part of a glycymeris shell bracelet upon which was exquisitely carved a frog.

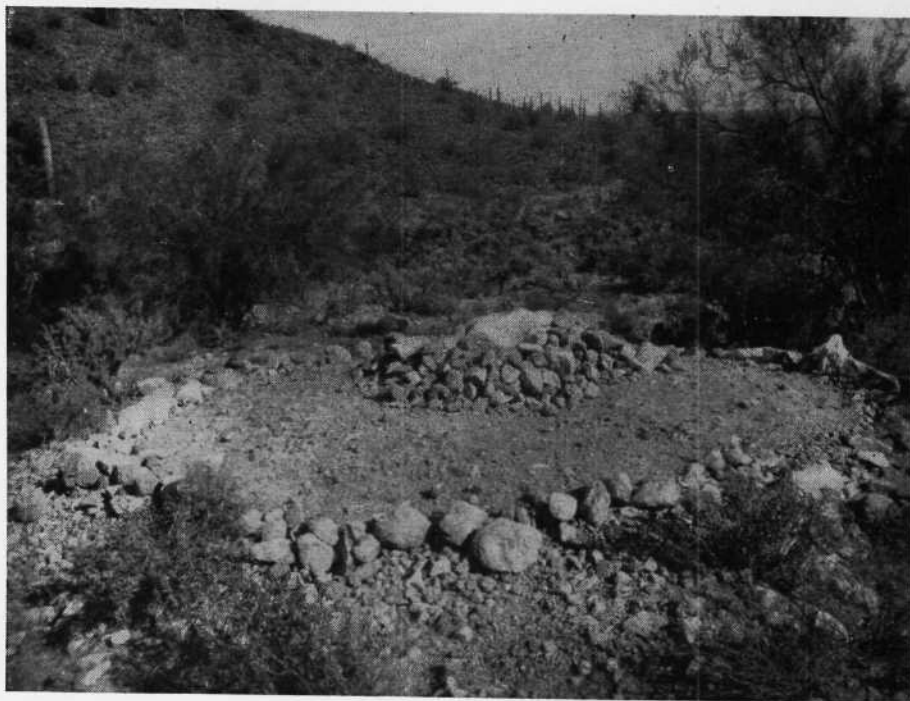
How these 1000-year-old pieces got to the shrine is anyone's guess. Of the first would be that the Pima had picked them up. But actually the only definite way of finding out for sure would be to excavate down a few feet and see what type of sherds came from the bottom—Pima or Hohó k' aam?

I took nothing but one beautifully serrated arrowpoint of flecked translucent obsidian. And that was picked up near and not on the shrine. But every few days I would go up there and speculate. The old *Makai* sitting under that rock almost became an obsession with me. I used to ponder—what was more important. Dig out the shrine? Or keep the Pima's friendship?

Just a few days before we closed the "dig" I went across the fields to the old saguaro-rib house of Sun Leaves. Using a school girl, who was visiting the old woman, for an interpreter, I said, "Grandmother, as far as I'm concerned your shrine is as you left it."

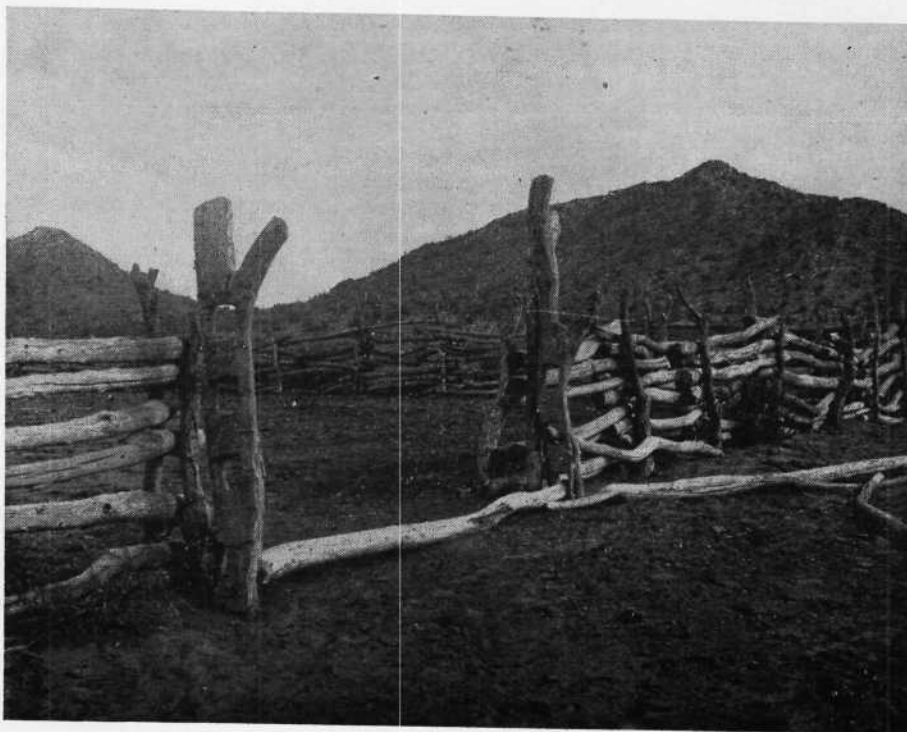
After quite a time she answered, "I've been up there. I've seen your tracks. Nothing is disturbed. Not even the turquoise beads that I hid under the big rock! For after I talked to you in the gap I went back and made sure that you wouldn't find them."

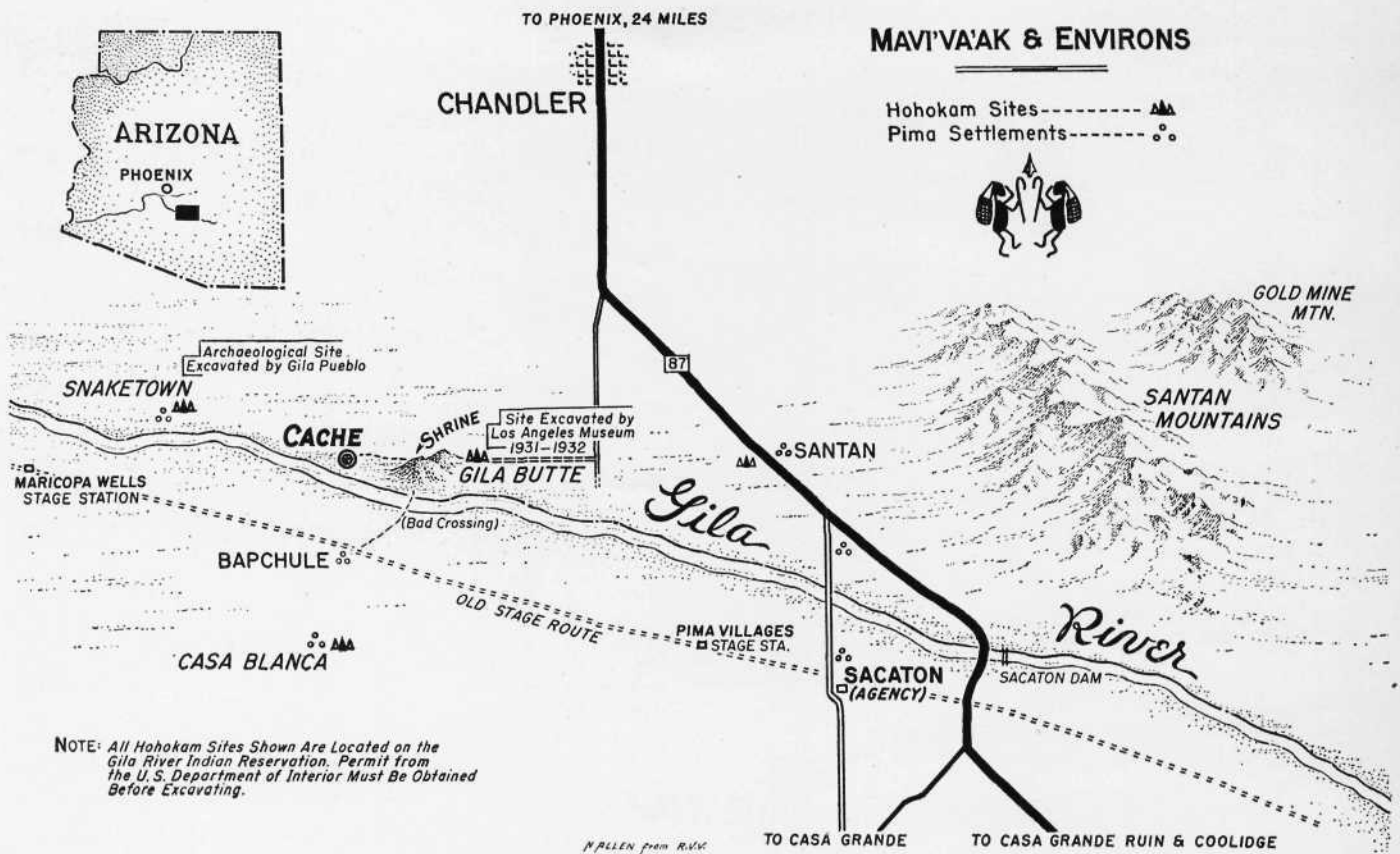
Then taking a stick she started to draw lines in the dust as she directed, "Go around to the west side of Gila Butte. Then travel along the back of the river until you



*The Shrine of Mavi' Va' ak.*

*The old fence, which was the key to the location of the pottery cache.*





see an old log fence. In front of that fence look for a burned spot. Dig there!"

A few days later I asked Jack Snow to get his cameras and come with me for a jaunt down in the desert. Following Sun Leaves' directions we traveled to the west side of Gila Butte. Then shoving the station wagon into low we ground through the silty soil of the river bank.

After a short pull we spied an old wooden corral. This might be it. So we pulled up in front of the gate. While Jack set up his cameras I began to comb the sandy surface. Something pulled my eyes to the ground. I was standing in the center of a 15 foot ring of dark earth shot with charcoal!

Calling Jack I began to scuff away the loose top material with the side of my shoe. My sole caught on something. Getting down on my hands and knees I looked closer. It would not be necessary to search further. For just flush with the surface were the rims of two pottery vessels.

An hour's careful troweling and brushing uncovered a cache of 14 pottery vessels. To add to our loot there was an old milling stone and fragments of coiled basketry. And most important were datable trade-beads and bottles some of which had the Spanish word *boca* fired into the glass.

Leaving the pots *in situ* for a picture we studied them. In color they ran from those with buff bodies with red linear decora-

tions to plainware of buff, grey and red. In shape they ran from small bowls to large globular vessels with constricted necks.

Actually Sun Leaves had directed us to a complete housekeeping outfit of a Pima family of the 1850's. We were reasonably sure of the date. For the small red and blue beads with white centers found on the floor are known as the *Cornalline d' Aleppo*. And this type was introduced into the Southwest by traders during the middle of the 19th century.

The circle of charcoal and burned arrowweed told us that here once had stood one

of the dome-shaped dwellings similar to the one still standing at Snaketown in 1931. For some reason the house had been burned. Whether this was occasioned by death or disease we will never know.

For Sun Leaves never told us the story. As fate decreed, soon after our discovery, she passed on to the Land of the East, where all good Pima go. All we know is what we saw and that the old Pima woman directed us to one of the greatest caches of historic Pima pottery ever found in place. This was our ample reward for not desecrating Mavi' va' ak, the shrine of the Lying Puma.

### **SUPERSTITIONS ALMOST CLAIM NEW VICTIM —BUT TREASURE SEEKER RESCUES SELF**

Superstition mountains, east of Phoenix, Arizona, almost claimed another victim, latest in long line of searchers for legendary Lost Dutchman mine believed to be located somewhere in the rugged range. A. F. Lohr, 61, a Phoenix railroad office employe, made his way out of the range to Apache Junction after a cowboy and sheriff's posse made an all day search for him July 29. Lohr had become separated from two companions the previous day while the trio were searching for the lost gold mine.

Cowboys from First Water ranch south of the range organized the manhunt after Fred Hammell and William Flora, both of Phoenix, reported their companion missing. Later sheriff's deputies joined them. After Lohr "rescued" himself, he scoffed

at the idea that a posse had been sent to find him, and declared his experience had not stopped his determination to return to search again for the Lost Dutchman.

"It was a case of too many canyons, and I was sure mixed up for a while," he said. Although he reported he was "calm" he was without food, water or bedding when darkness fell in the Superstitions. Later he found a pool, where he bathed and rested. Finally reaching the highway, next day, he hitchhiked a ride to Apache Junction.

Saga of the fabulous mine has drawn seekers to the Superstitions for half a century. Many men reportedly vanished; others who lived to return told of finding skeletons of other treasure hunters who either had met with foul play or had become fatally lost.



# Plant of Starry Flowers --and Sandpaper Leaves

By MARY BEAL

**H**ERE'S a curious little bush, so pale in coloring that its aspect is almost spectral. It catches the eye most noticeably in summer when the bush is covered with clusters of very small white flowers. Blooming when most of the shrubs have completed their annual flowering, the Sandpaper Plant sets off its neutral surroundings with a galaxy of tiny twinkling stars. It belongs to the Loasa family, a small group distinguished by herbage with rough, barbed or stinging hairs, all more or less unpleasant to handle. The most irritating genus, *Eucnide*, warns emphatically "Hands off" at the slightest touch but the genus we now consider is one of the least disagreeable, being rough to the touch but not stinging. It is known botanically as *Petalonyx* and the most common species is

## *Petalonyx thurberi*

This species was named for the botanist George Thurber of the Mexican Boundary Survey made in the early 1850s. Usually a low rounding bush a foot or two high and as broad or sometimes more than twice as broad, the pale grey-green herbage whitened by a dense covering of fine, stiff, short hairs turned backward, giving the plant a sandpaper-like roughness. The shortly-branched woody base bears numerous erect or ascending branches, each branch with many slender ascending branchlets ending in short, rather showy flower heads or spikes arranged in open clusters like a corymb. The individual flowers are tiny, the 5 petals of the white corolla with long hairy claws lightly joined, to form a slender flaring tube, the blades spreading into a sparkling little star. The delicately fragrant flower is unique in the arrangement of its 5 stamens, which are outside the corolla instead of within and are twice its length. The small harsh leaves are sessile, lanceolate to narrowly ovate,  $\frac{1}{4}$  to 1 inch long, the upper ones smaller and entire, the lower sometimes with a few teeth near the base.

This Sandpaper Plant is abundant in sandy soil on plains, slopes and washes, up to 5000 feet altitude, from southern Nevada through the deserts of California and western Arizona into northwestern Mexico, blooming from late spring to early fall.

## *Petalonyx linearis*

A woody-based, globose bush, leafier and generally smaller than the above species, from 6 to 15 inches high, the herbage harsh to the touch, the leaves green and all entire, roughened by minute hard points or prickles, and not noticeably graduated in size, linear to narrowly oblong,  $\frac{1}{2}$  to over 1 inch long. The tiny white flowers are clustered into dense heads, the blade of each petal centered on the back by a thick hairy patch, the claws only slightly hairy. In bloom by early spring, it is found occasionally on sandy plains and rocky canyons, up to 2500 feet elevation, in Colorado desert, southwest Arizona and Lower California.

## *Petalonyx nitidus*

A very interesting, leafy bush with many herbaceous stems from the base, 8 to 16 inches high, the herbage minutely rough to the touch. The plant is easily recognized by the glistening surface of its leaves, which are described in the old botanical reports of the Geological Survey as "vitreous and shining." They vary little in size, from an inch to  $1\frac{1}{4}$  inches long, are coarsely-toothed, broadly-ovate to round-ovate, and attached to the stem by short petioles. In addition to the conspicuous leaves, the flowers too are more showy and twice the size of the other species mentioned, the white corollas  $\frac{1}{2}$  inch long and disposed in dense cymose panicles terminating the branches. They bloom



Small starry white flowers cover this Sandpaper Plant, *Petalonyx thurberi*, in summer. Photo, by the author, shows end of one branch.

in midsummer at altitudes of 3500 to 7000 feet and are rather rare but now and then delight the botanist (scientific or amateur) in canyons of the western Mojave desert, mountains of Owens valley and the Death Valley area, southern Nevada and Utah, and western Arizona. I have botanized over most of the areas where the Death Valley Expedition found this plant but it was in springtime (March and April) and the flower panicles had barely started to grow.

## *Petalonyx parryi*

Conspicuously different from the foregoing shiny species, though it was for a time assigned to that classification, this Parry Sandpaper Plant is the largest of the *Petalonyx* species. It is more shrubby and decidedly woody of stem, 3 to 5 feet tall, rounding in form. The leaves are  $\frac{1}{2}$  to 1 inch long, ovate and sessile or nearly so, the margins with rounded teeth instead of pointed, the lower ones becoming small, oblong and entire. The white flowers are nearly  $\frac{1}{2}$  inch long and are borne in simple, dense, spike-like racemes. It favors dry washes at moderate elevations and may be found in bloom in late spring in southern Utah and Nevada, and northern Arizona.

## Island of Ferns Found in New Mexico . . .

A sunken island of ferns watered by a year round subterranean stream has been discovered in Grants lava flow, west of Albuquerque, by Dr. Alton Lindsay, assistant professor of biology, University of New Mexico. The fern, maidenhair spleenwort, grows on an island apparently made when roof of one of the many caverns in the lava flow collapsed, forming a base in middle of a doughnut-shaped pool. Because the fern pool is just within western boundary of Acoma Indian reservation, the biologist believes only a few Acoma herdsmen have seen the little island. It is invisible from road or railroad and seems destined for indefinite preservation.



*This time it's a Shovel-Nosed Ground snake, *Chioactis occipitalis annulatus*, a nocturnal species little known prior to the advent of night collecting.*

## On the Prowl for Reptiles

When hot weather comes, the reptiles on the desert—like humans—prefer to do their traveling in the cool hours of the night. This fact long ago became known to the scientists whose business it is to collect and classify these denizens of the dune country. And if you wonder just when and how the "herps" go about their task of gathering in the lizards and snakes—here is the story of a scientific snake-hunt.

By KEN STOTT, JR.

Photographs by G. E. Kirkpatrick

**C**REEPING along the desert highway in darkness of night at 12 miles an hour is a car bulging with passengers. There is one on each front fender, and from every open window projects a head with eyes straining toward the ground.

"Migrant fruit pickers on their way to a new job?" you ask.

No, guess again. They are reptile collectors engaged in one of the most excit-

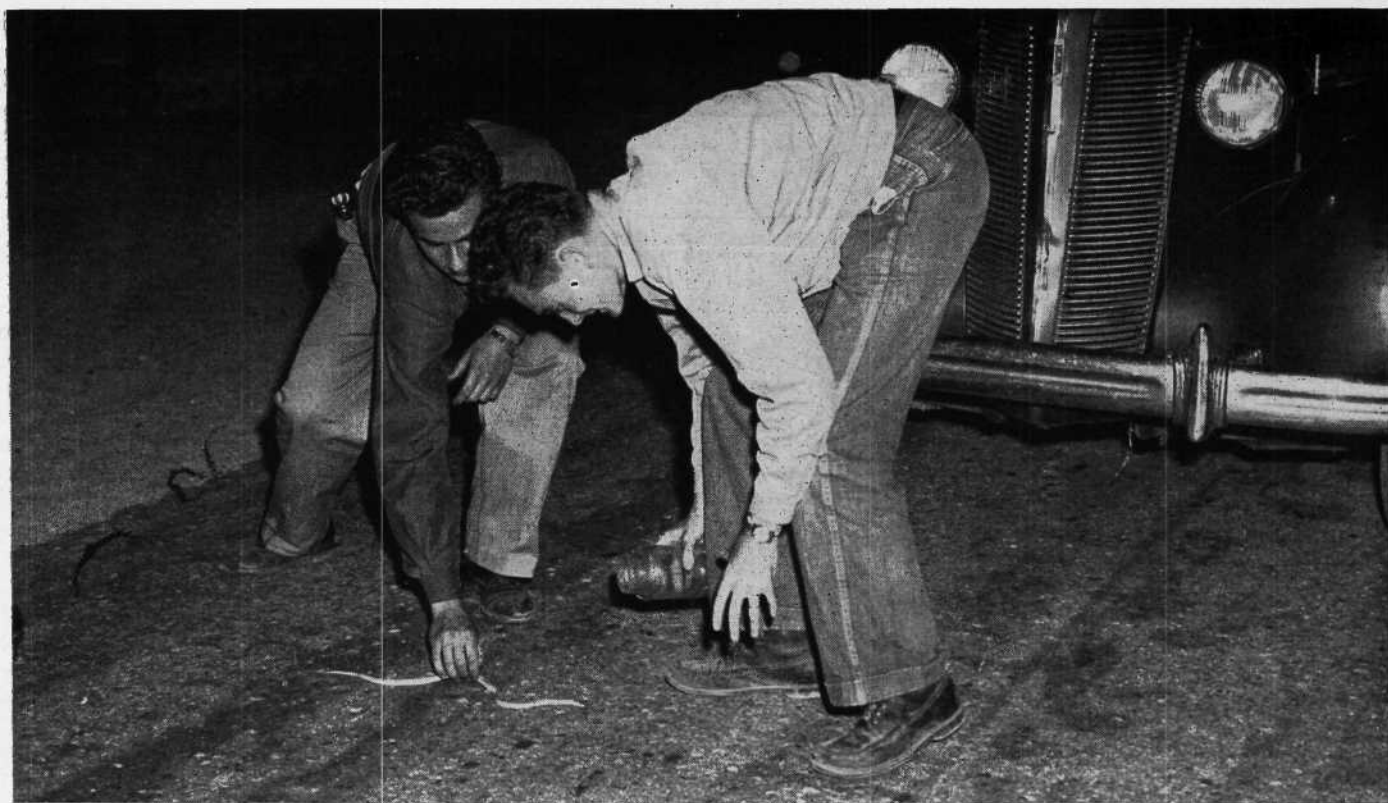
ing and at the same time constructive sports the Southwest has to offer.

Each year during the late spring and early fall night-collectors from western colleges and natural history societies pour into the deserts. Some of them are top-notch scientists, others are students, and still others mere novices out for a thrill. But the object of one and all is to collect every snake and lizard which is so unwise as to crawl across the road ahead of them.

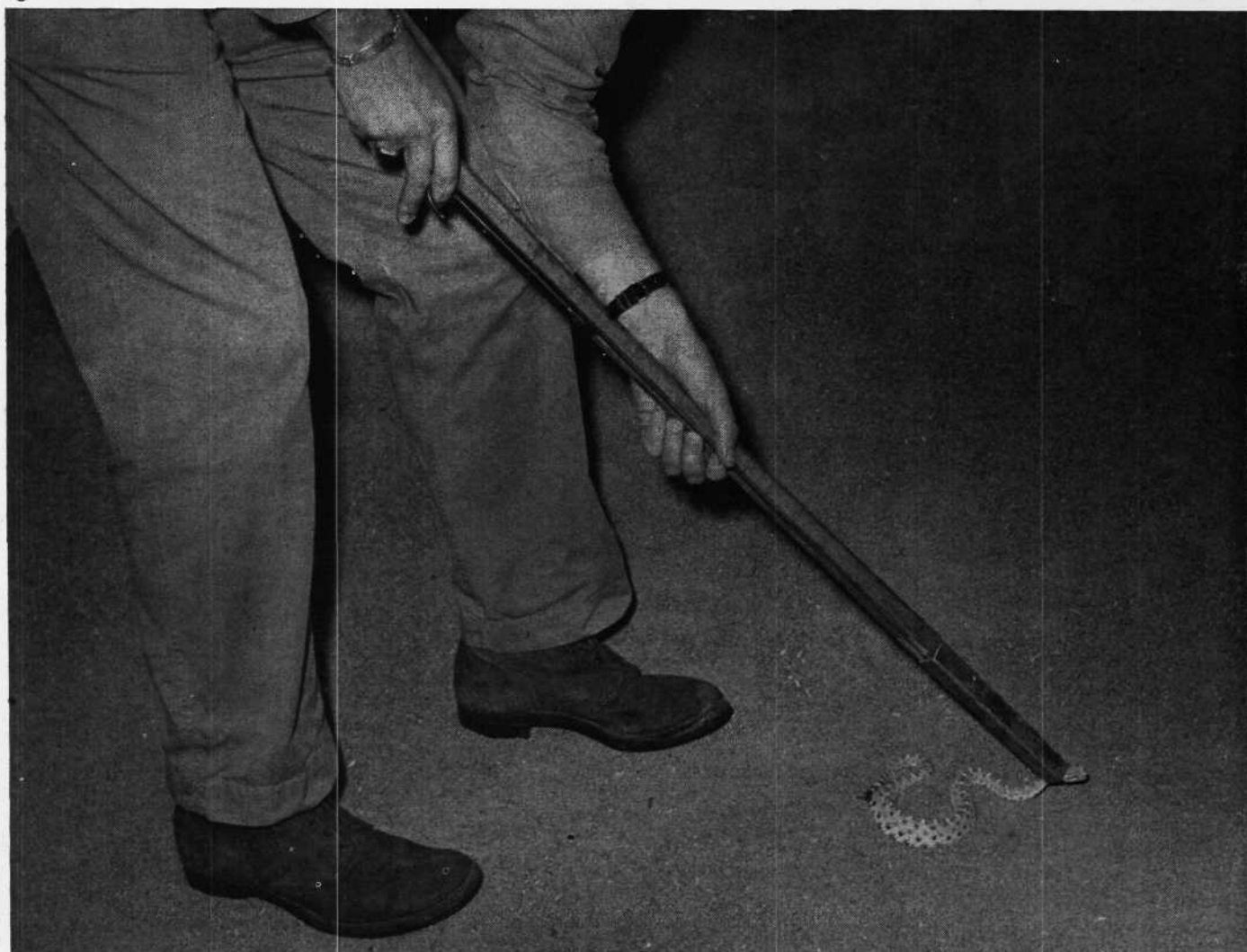
No idle pastime this. Each captured reptile contributes to the general knowledge of our native fauna. Reptile collectors have an unwritten agreement that any specimen they pick up is to be sent to the man who knows the most about the group to which it belongs. Consequently few valuable specimens fail to arrive eventually at the institutions which can make the best use of them.

The Southern California clearing house





Above—"Got it!"—and this Western Glossy snake, *Arizona elegans eburnata*, is on its way to London via the San Diego zoo. Below—The snake-stick removes most hazards from snake collecting. The prize here is a small species of rattler—the sidewinder.



5/12/39 •

SPECIMENS ( & known-points for mileage correlations.)	MILEAGE	TEMP.	TIME	REMARKS	DOR
Julian	7369				
Worm Snake <u>L. h. cahuilae</u>	7391	75°	7:15	Wind fairly strong	
Spotted Night Snake <u>H. t. ochrorhyncha</u>	7393			Cliff left Drop-off rt.	X
Sentenac Bridge	7394				
Glossy Snake <u>A. e. eburnata</u>	7396	72°	8:02		
Yaqui Well	7397				
Long-nosed Snake <u>R. l. clarus</u>	7398	73°	8:15		
Gecko <u>C. v. variegatus</u>	7398	"	"		
Shovel-nosed Ground Snake <u>C. o. annulatus</u>	7399				X
Leaf-nosed Snake <u>P. d. perkinsi</u>	7400	73°	8:33		
"	7401	74°	8:35	Strong west wind	
Gecko	7402	73°	8:44		

Sample page from the log of an actual night collecting trip.

for reptiles is the San Diego zoo where L. M. Klauber, C. B. Perkins and Charles E. Shaw, three internationally recognized herpetological authorities, examine and identify each specimen and relay it to the proper destination. Duplicate specimens not desired by specialists are sent to fill out collections in various scientific institutions. Hundreds of specimens pass through the San Diego reptile house each year and subsequently find their way to every corner of the globe. A Mojave rattler picked up by a high school student near Barstow may wind up in the London zoo and a Long-nosed snake brought into the zoo from Borrego may be dispatched to the museum in Port Elizabeth, South Africa. Money never is involved in these transactions, either between the original collectors and the intermediaries or between the latter and the institutions to which the reptiles eventually are sent. It's all for the sake of science.

Twenty-five years ago night-collecting techniques were very primitive, consisting of merely wandering across the desert on foot and collecting by the light of a Coleman lantern. First to recognize the potentialities of this method was L. M. Klauber who developed it into a science.

On driving surfaced desert roads at night he found that pale-colored reptiles, which were difficult to discern against the desert sands, at once became apparent when they crawled onto a macadamized road. Against this dark and unnatural background, their light bodies were perfectly outlined. Klauber began to make a business of touring desert roads at night in search of reptiles and his results were so astonishing that other southwestern herpetologists (or "herps," as they have come to be known) lost no time in following his lead.

In using Klauber's method, collectors found a way to accumulate large numbers

of snakes and lizards with a minimum of effort. Furthermore, they discovered that species which they previously had considered uncommon could be collected by the bushel. Inactive during the day, and as a result seldom collected, creatures like the Leaf-nosed snake became run-of-the-mill captives.

After a few years of concentrated night-collecting herpetologists were able to formulate a fairly definite schedule of reptilian activity. They found that there are two seasons during which desert reptiles are most active, late spring and early fall. During these periods, more reptiles are on the move between eight and eleven p. m. than at any other time of night. From eleven on their numbers dwindle until the small hours when catches come few and far between.

Night collecting is not an expensive pastime nor does it require a great deal of equipment. "Musts" however, include: a snake stick which consists of a broom handle at one end of which is secured a leather noose that can be manipulated by a long wire leading to the other end, a pair of long-handled forceps, several hole-less flour sacks, half a dozen large glass jars with perforated covers, a thermometer, a notebook and pencil, a couple of flashlights, and a car. This list should be supplemented for safety's sake by a snake-bite kit of reputable make.

In planning a night collecting trip, it is best to arrive at the area in which you intend to collect well before nightfall so that a survey of the country may be made in daylight. The surface and shoulders of the road should be examined as well as the adjacent terrain. Whenever possible, roads bordered by ditches should be avoided for such obstacles discourage reptiles from crossing them and the road beyond. Ideal is a road which runs on exactly the same level as the adjoining country with no intervening obstacles, and the darker the macadam the better.

When dusk falls the time for snake collecting begins. A collector with flashlight in hand perches on each fender and the hunt begins at the speed of from 10 to 12 miles per hour. Every additional mile of speed above that decreases the chance of seeing the more minute and neutrally colored snakes and lizards. Traveling at a snail's pace it is possible to scan every inch of the road as the headlight beams move along. Whenever some object which may be a specimen is spied, the signal for a halt is given and all occupants pile out of the car to take a look at it. Sometimes it may be no more than a wisp of straw, a coil of wire or even a "fan-belt snake" but then again it may be the real thing.

Since the only dangerous snakes in the Southwest are rattler and coral snakes, any other type of snake may be picked up in the bare hand. With rattlers it is always best to use the snake-stick which puts a



distance of three and a half feet between the collector and the business end of the reptile. Coral snakes, which are restricted to eastern Arizona, can be handled safely with a long pair of forceps. Large reptiles should be dropped in flour sacks while small ones are better placed in glass jars.

It is of extreme importance that certain information regarding every specimen collected be recorded. Following the snake's name (or number, if his identity is uncertain) should be placed the location at which he was caught, best done by giving the exact mileage from a known point; the temperature; the time of collection; and remarks regarding the surrounding terrain or anything else which seems significant. This data may be recorded most conveniently by lining a sheet of paper so that each item has a column of its own—name, location, temperature, time, and remarks. To these add a sixth column headed by the initials DOR which in the vernacular of the herp means "Dead on Road." It is almost as important to record every dead specimen observed as it is to re-

cord the living ones for such statistics prove valuable in defining the distribution of a species. A slip of paper bearing the speedometer-reading should be placed in the receptacle with each specimen and serves to correlate it with the corresponding information in the notebook.

When snakes and lizards are forwarded to scientific institutions by collectors, complete information should accompany each one. Without this data, the specimen loses much of its value and contributes little to the knowledge of its species.

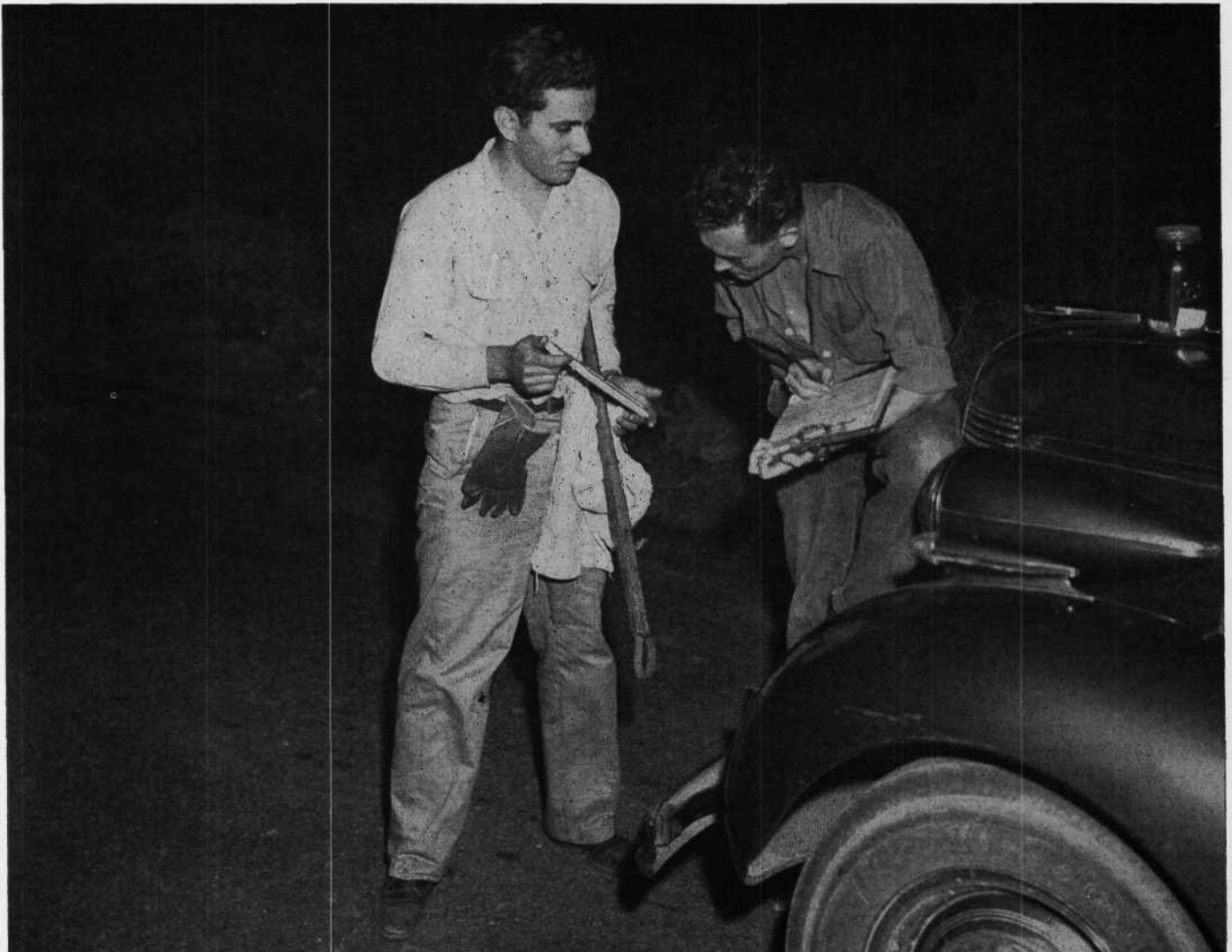
While night-collecting has brought much to light concerning the various reptilian denizens of our deserts, there still is a great deal to be learned about them and only continued collecting and the resulting statistical studies will fill in the gaps. So rig yourself up a snake-stick, climb into the car and head for the desert. You may be the one to collect a rare specimen or contribute some important piece of information for which herpetologists have searched in vain since a serpent upset the applecart in the Garden of Eden.

**Western Glossy Snake** is in a group called the Faded Snakes, is closely related to the bull snakes which it somewhat resembles. It is smooth and shiny, is strictly nocturnal, averages 30 inches in length.

**Sidewinder or Horned Rattler** is remarkable for its peculiar looping, sidewise locomotion, is almost entirely nocturnal, averages about 18 inches in length, is poisonous.

**Leaf-nosed Snakes** (*Phyllorhynchus*) are nocturnal desert species. Although first discovered in 1868 only 10 additional specimens were found until 1922, but after L. M. Klauber discovered their nocturnal habits often more individuals were collected in one night than in the entire preceding 65 years. Averages 15 inches.

*Bob Glaser (left) and the author record the temperature immediately following the capture of a specimen. Recordings over a period of time establish the temperature at which each species is most active.*



# Mines and Mining . .

## Washington, D. C. . . .

Ending a long controversy, the silver bill raising the price of the metal from 71.11c to 90.5 cents was approved by both houses of congress July 19, and the signature of the President was assured. Under the compromise reached by house and senate representatives in conference the U. S. mints will pay the new price for domestic silver only for one year after the month in which the mineral is mined. Actually, the U. S. treasury may get \$1.38 an ounce for a limited amount of silver to be used in the coinage of 100,000 half dollars commemorating Iowa's statehood, and 5,000,000 honoring the Negro educator, Booker T. Washington. Considerable foreign silver was dumped on the market by speculators during the controversy in congress, temporarily relieving the shortage of metal among Indian metal workers.

## Gallup, New Mexico . . .

One of the large wells used for irrigation purposes in Bluewater valley recently began pumping saline water that was reported to carry epsom salts. Owners drilled deeper and were successful in casing off the salt water and getting a fresh supply.

## Salt Lake City . . .

Production of steel at the Geneva war plant, recently acquired from the federal government by the U. S. Steel corporation, was resumed late in July. The corporation has filed an application for a rate of \$8.00 a ton on finished steel shipped to Pacific Coast points from San Diego to Seattle, Washington.

## Mina, Nevada . . .

Following several months of exploratory work, production of ore is expected to start soon at the Warrior gold property in northwestern Nye county. The property recently has been acquired by John Siri and Martin G. Evanson. A considerable ore body that assayed from 1½ to three ounces of gold has been tapped on a new drift.

## El Centro, California . . .

U. S. Gypsum company, which purchased the Plaster City plant and quarries of the Portland Cement company, has announced plans for enlarging the capacity of the mill, rebuilding the narrow-gauge railroad which runs 26 miles to the deposits in Fish Creek mountains, and rebuilding the housing facilities of employees.

## Winslow, Arizona . . .

A small group of Phoenix men are reported to have purchased on a royalty basis the silica sands in Meteor crater near here. The sand is reported to test 99.7 per cent with no refractory elements except a low per cent of iron. The sand will be used for precision casting.

## Johannesburg, California . . .

A steady producer for more than 50 years the King Solomon gold mine has resumed operation after being closed down during the war years. Both the mine and mill have been leased to Max Hess and James Christensen by the Shipsey Mining company, owners of the property. It is reported the mill will handle custom ore from other nearby properties.

## Jerome, Arizona . . .

After 60 years of operation during which more than \$600,000,000 of copper, silver and gold have been produced, the old mines at Jerome have been worked out and the smelter at Clarksdale is to be closed down next year. The United Verde Copper company opened the Jerome district in 1883. In 1915 the United Verde Extension Copper company was formed, and in 1935 Phelps Dodge acquired the United Verde and the extension company was dissolved in 1938 due to exhaustion of ore. Phelps Dodge has made an exhaustive search for additional ore in the area without success.

## Bisbee, Arizona . . .

After being closed by strike for more than 100 days, the smelters of the Phelps Dodge corporation are in operation again and expect a steady increase in the production of lead, copper and zinc. More than 1,000 men are employed at Bisbee and the Morenci plant expects to use 2500 when it reaches full production. Miners are said to be plentiful for the first time in five years.

## Prescott, Arizona . . .

According to the report of J. Walters Jr., owner of French Lily mine, a process has been perfected for the refining of vermiculite which will have an important bearing on the production of lubricating oil. It was stated that capital is available for the construction of a \$5,000,000 refinery in Yavapai county where the mineral is plentiful. Until recently the mineral has been too abrasive for use in lubricants but the new refining process eliminates this objection and it is believed a commercial product can be produced at between 20c and 30c a pound.

An extensive deposit of bone-white pumice has been located near Oasis in Inyo county, California, according to the report of D. H. Patten, locator.

Arizona Bureau of Mines at the state university at Tucson has issued two new maps showing metallic and non-metallic deposits in Arizona. A third map shows the Arizona mining districts and is indexed. A fourth map, revised reprint of the state topographic map will be out soon.

After a brief lapse of market quotations following the lapse of OPA, the price of copper was re-established at 14¾ cents a pound.

Carter Oil company, a subsidiary of Standard of New Jersey, has set stakes for oil drilling operations 10 miles northwest of Vernal in Utah. This is the first major oil company to enter the Ashley valley district.

According to reports from the Civil Production Administration, 300,000 tons of copper in government stock piles may be released for the veteran housing program within the next 60 days.

## A TWO MILLION DOLLAR POWER BUSINESS

IMPERIAL IRRIGATION DISTRICT'S POWER REVENUE FOR 1945  
TOTALED MORE THAN TWO MILLION DOLLARS

**TOTAL REVENUE** for 1945 was \$2,413,235.40, recorded by the District's power division, an increase of \$284,768.25 over 1944. **MORE IMPORTANT** is the total of \$827,088.89 IN NET REVENUE as compared to the 1944 total of \$622,697.35—A GAIN of \$204,391.54. . . .

This large increase in power revenue was made possible by greater consumption of electricity, previous elimination of competition, and intelligent business planning which is continuing to provide for expanding power needs of rapidly growing communities.

A decade of successful growth is ample proof that Imperial Irrigation District's Power Program when fully developed will take care of future requirements, as well as it has past needs.



**Use Your Own Power—Make it Pay for the All American Canal**



# LETTERS...

## Fangs of a Rattler . . .

Ajo, Arizona

Dear Sir:

I wish to take exception to an item in your "True or False" column in your July issue. You state that the rattlesnake has but two fangs. I have examined many rattlesnakes and have never found one without at least two fangs on either side. It is true that only two, one on either side, are used when the snake strikes but right back of the pair that is in use is another pair ready to grow into place in case the first pair is lost. The second pair can be lifted from the roof of the mouth with a knife blade or stick very readily and it certainly looks potent.

LESLIE N. GOODDING

*Friend Goodding: Just to put us both straight on this matter of the rattler's fangs I referred your question to Ken Stott Jr. of the Zoological Society of San Diego. The information in Stott's answer comes from C. B. Perkins, head of the reptile department of the San Diego society. Following is his letter.—R.H.*

Dear Mr. Henderson:

Neither of the versions of fang shedding and replacement which you gave in your letter is strictly correct. Fangs are continually shedding and replacing, there always being a series of fangs in various stages of development in addition to the working pair. If one of the working pair is injured or destroyed there is no replacement immediately, the next fang in line taking its place only when it would have done so in the normal replacement process.

KEN STOTT JR.

## Origin of the Crater . . .

Hollywood, California

Dear Mr. Henderson:

The July issue of Desert Magazine contains a note saying that Dr. N. H. Darton of the U. S. Geological Survey has concluded that the Arizona meteor crater was formed as a result of a steam explosion, apparently basing his belief on the fact that search has failed to reveal the presence of a deeply buried meteorite. Such a conclusion seems to me to be rather surprising in view of the evidence that has accumulated regarding this and other similar craters.

As a result of a personal study of the region, the evidence in favor of an explosive origin of the crater seems to me to be very strong. However it points also to a meteoritic origin with nothing to indicate any volcanic action.

The fact that the meteorite is no longer there is really what we should expect. A mass, or more probably a group of masses,

of the size indicated by the crater would possess an enormous amount of energy which would be turned to heat when the meteorite was suddenly stopped. This heat might easily be enough to vaporize the mass and cause an explosion capable of forming a crater much larger than the meteorite producing it. The Henbury craters of central Australia afford proof of the above conclusion. There are 13 of these pits, all smaller than the one in Arizona, and the 12 largest are entirely empty while the smallest contained meteoritic matter which has now been removed.

While the main mass of the Arizona meteorite was dissipated as vapor, there is still plenty of evidence of its former existence. When the explosion took place, the heat fused some of the sandstone in which the crater was formed and impregnated it with vapor. Mr. John Herman, well known Los Angeles assayer and chemist, has kindly made for me spectroscopic tests of the fused material and reports that it contains nickel and other elements found in the smaller meteoric masses which fell over the surrounding country. He states that the result is "exactly as would be expected from meteoric vapor."

The fact that one geologist holds to the theory of a volcanic origin of the Arizona crater is of interest, but we should not forget that a large number of scientists have made a personal investigation of the locality and have come to a quite different conclusion as a result of evidence that seems to them to be quite conclusive.

W. SCOTT LEWIS

## Challenge of the Indians . . .

Prescott, Arizona

Dear Editor:

The article quoting Mrs. Threepersons of Silver City, New Mexico, on the high infant mortality rate and the 8½ times U. S. average of tubercular victims among our Navajo is U. S. scandal No. 1. It is a challenge to our churches, our educational system, and to all of us as individuals.

These "real Americans" deserve the right to expand educationally, to have ample hospitals, and the best medical care.

What will be our future action to improve these deplorable conditions? Will we continue to concern ourselves with the welfare of those in foreign lands and neglect our duty to the Navajo at home?

Christ said, "As much as ye have done it unto the least of these, ye have done it unto me."

MRS. E. J. McCORMICK

## Those Lost Wagons . . .

San Gabriel, California

Dear Desert:

On March 10, 1928, Henry Moore and myself started on a trip to Death Valley. I wanted to find out about the history of those lost wagons that have held a prominent place on all Death Valley maps in recent years—about six miles west of the mouth of Titus canyon.

On the morning of the 12th we left Stovepipe wells and drove to the mouth of Titus. We had field glasses so we could search the landscape for the missing wagons. But we could find no trace of them. Apparently they were gone. I had heard many times they were wagons abandoned by the Jayhawkers in the winter of '49. But



"Our road turns off along here someplace . . ."

according to Manly's book, that was not true.

We went back to Surveyor's well and stretched a canvas on which to eat our lunch. The thermometer read 110 degrees in the shade—yet we didn't feel too warm in our shirt sleeves. As we finished our lunch an Indian rode into camp. As he came closer I recognized him as Shoshone John.

He said: "Me look for horses from Furnace Creek ranch. You see horses?" We told him we had been searching the area with our field glasses and had seen a few burros, but not one horse. Then I put a few oranges in John's saddlebag, and introduced him to my friend Moore. In the conversation that followed I got what I believe is authentic information about the lost wagons. I asked him if it was true those were the wagons abandoned by the Jayhawkers. John shook his head and said, "I tell you all."

"Some man buy wagons from Borax company to take to Nevada. Two wagons, try take 'em up valley north. No road, get 'em stuck, get disgusted, leave 'em wagons, go 'way, say come back some day. One month no come back. One year no come back. Ten years no come back. Forever no come back. People at bungalow city (Stovepipe Wells hotel) haul 'em wagons to bungalow city." We recalled we had seen a couple of ancient wagons at the Wells. And so the old wagons are being preserved—and this is what I believe to be the true story of their origin.

A. FRED EADS

### Be Good to the Tenderfeet . . .

Warrenton, Oregon

Dear Mr. Henderson:

Please do not be too rough on the tenderfeet. I've helped entertain many of them with tall tales of the West. This desert would be a dull place without 'em. So be as tolerant as you can for we'll surely miss 'em if they ever quit coming to the open spaces.

Don't let anybody kid you about rattlesnakes and hair ropes. If you'll just follow a rattler around awhile you'll find they cross anything, no matter how sharp or jagged. There may be some special kind of a rope they do not like, but I have never seen such a rope and I have spent long periods in the desert. I have never found a rattler in my bed nor around it. The Indians do not use ropes for protection.

J. JAMES

### Hair Ropes and Yellow Feathers . . .

Centralia, Washington

Dear Mr. Henderson:

Your "Just Between You and Me" page for August was tops. May I have the privilege of being numbered among the tribal members of the dream world you wrote about? But the sad part of it is your dream

## TRUE OR FALSE

Folks who never have seen the desert sometimes have strange notions as to what the country is like, what people do there, and how the humans and plants and animals survive the hot summers. The answers to these questions all appear sooner or later in Desert Magazine—and many of them may be found in the monthly Quiz. So you can learn something from this department, even if your score is not very high. The average person knows about ten of the 20 answers. A desert dweller should score 15. More than that indicates a superior knowledge of the desert. Answers are on page 44.

- 1—In the desert country, as a rule, the higher the altitude the higher the temperature. True..... False.....
- 2—Many of the Indian tribesmen in the Southwest still daub their faces with paint for ceremonial events. True..... False.....
- 3—Cottonwood trees shed their leaves in wintertime. True..... False.....
- 4—First explorer to run the rapids of the Grand Canyon in a boat was Lieut. Joseph C. Ives. True..... False.....
- 5—Palm trees on the desert may live for six or eight years without water. True..... False.....
- 6—Wupatki national monument is an old Indian ruin in New Mexico. True..... False.....
- 7—The state of Utah derived its name from a tribe of Indians. True..... False.....
- 8—Furnace Creek Inn is the name of a hotel in Death Valley. True..... False.....
- 9—Hornblende often occurs in crystalline form. True..... False.....
- 10—The Colorado desert is in the state of Colorado. True..... False.....
- 11—According to the tradition of the Hopi Indians, their gods live in the San Francisco mountains of Arizona. True..... False.....
- 12—The famous Comstock lode was located near Tonopah, Nevada. True..... False.....
- 13—A line drawn north and south through Salt Lake City would be west of Tucson, Arizona. True..... False.....
- 14—It never snows at Snowflake, Arizona. True..... False.....
- 15—Gen. Kearny's Army of the West in 1846 crossed the Colorado river near the present site of Needles, California. True..... False.....
- 16—Conchas dam and reservoir supply irrigation water for farmers in New Mexico. True..... False.....
- 17—Beavertail cactus has no spines. True..... False.....
- 18—Rattlesnakes often are killed by non-venomous kingsnakes. True..... False.....
- 19—Father Kino was the first padre to explore the present territory of Utah. True..... False.....
- 20—Fiber from the devil's claw is used by the Indian women for weaving baskets. True..... False.....

world is quite likely to remain just a dream for a few thousand years.

Anyway, in the event of an atomic war, please save space for me and my bedroll at your Juniper spring (Desert, July '46). On second thought, though, I reckon my patriotic sense of duty would prevent me (and you too) from hiding out like that. We probably would join up again, or produce food and other essentials to keep the rest of the gullible folks fighting each other.

I see that old rattlesnake hair-rope argument is still going strong in Desert. That reminds me that you stuck your neck out something scandalous (Desert, May '46) with your comment, "a hair rope to keep rattlers off the bed comes from the same school of voodoo as the old supersti-

tion that if you feed White Leghorns yellow corn their feathers will turn yellow." Now anything you write in Desert is all right with me. I like it. But my Leghorn pullets took offense and quit laying eggs when I told them what you said.

So if you are ever up this way look me up and I'll show you any number of White Leghorns with yellow feathers. Well, maybe not a canary yellow, but definitely a nice rich creamy yellow tinge all through the feathers. They got that way from eating yellow corn, or perhaps it was just some of that wonderful carotene content alfalfa meal that was grown, harvested, ground and de-hydrated in your irrigated desert country.

RALPH WALDO



Juana Maria Better Than Nothing provided the thrill of the month for Rider, Rudyard and Victoria South. Bearer of the multiple name is one of the three desert tortoises cherished as pets by the young members of the South family. Juana Maria's achievement—with the resultant anticipation—is revealed by Marshal in this chapter of life at Ghost Mountain.

# Desert Refuge

By MARSHAL SOUTH

THE WILDERNESS of tumbled boulders, which is the summit of Ghost Mountain, gleams in the sun. The desert is utterly still. Not even one of the vagrant little winds which are almost constantly tip-toeing amidst the mesquites and the junipers is stirring. The ramada casts a rectangle of shade which is as sharp as though it were a section of black paper, cut out and laid upon the white quartz gravel. In its cool shadow Rudyard and Victoria squat like little Indian statues, watching the three desert tortoises who are gathered, heads almost touching, about a bit of green upon which they are eagerly munching. This is, for the tortoises, a great occasion. For they are feasting upon lettuce—something which is as dear to their leathery hearts as the most exotic dish would be to an epicure. They do not often get it. But yesterday I went in to town for supplies and, under orders from Rider, who spends a good deal of his savings in buying tid-bits for his queer pets, brought out a supply of lettuce sufficient to last them for some days. Our tortoises are, alas, softening under the influence of—to them—civilization. When we first adopted them they would not even look at such things as melon rinds, cabbage leaves or even lettuce. They preferred to munch hardy desert fare like rattlesnake weed, galleta grass, bunch grass and the tasty twigs of dry and spiny bushes. But the system-weakening insidiousness of easy living has left its mark upon them . . . as it does upon everyone. Shame to relate they lately have been seen contentedly eating corn meal mush, apple parings, bread and many other trimmings from the outskirts of "Progress." Then they discovered lettuce. And, like the Indian with alcohol, it has gone to their heads. They have no resistance. Lettuce days are the days when all other food is absolutely ignored.

Well, I suppose they are entitled to some pleasures in life. A desert tortoise has few dissatisfactions and does not even seem to get any thrill out of politics or shivers about atomic bombs. They have been terribly spoiled since Mojave died. For Rider was so heartbroken at the tragic fate of the big tortoise that he fusses and worries constantly over the remaining three. On very hot days they get damped down at regular intervals with precious water. And on chilly or stormy nights they are carried tenderly to comfortable quarters within the house. All these attentions, however, Rider feels were amply repaid the other day when Juana Maria Better than Nothing contributed two very fine eggs to the tortoise establishment. This was a momentous occasion, and one that was not lightly come by. For Juana Maria spent a long while making up her mind—and changed it many times after making it up. She spent several days digging trial nests, all of which, after almost deciding, she discarded. Finally, while out on the flat before the house, during one of the periods when she and the others were being herded on pasture, she found the ideal spot beneath a goatnut bush. Here she excavated a little pit approximately eight inches deep and deposited therein two pinkish white eggs about the size of large bantam eggs. This done she carefully filled in the pit and spent a lot of time making

an artful camouflage of the spot where it had been dug. When her labors were completed all the earth, dry twigs and fallen leaves had been replaced so expertly that it was absolutely impossible to see that they had ever been disturbed. Then, contentedly, well satisfied that she had done a good job, Juana Maria ambled off to rejoin her companions—and Rider, Rudyard and Victoria, who had watched the proceedings with breathless interest, carefully dug up the precious eggs and installed them safely in a screen-covered box of earth to hatch. When—and if—the tiny tortoises emerge to the light of day they can count on a hearty and affectionate welcome.

We are still far from settled. In fact it often seems that we have not yet even begun to start our settling. Almost all of our possessions still are scattered over the landscape, sketchily housed against possible thundershowers by scraps of canvas, old roofing iron, tar paper and anything which might serve to turn storm water. Many of them are uncovered, for there is not enough cover material to go around. Still, bit by bit, they are going up the mountain. It promises to be a long task. And, while it lasts, many other activities have to be suspended. Mail is backing up, unanswered, into a pile of terrifying proportions. We hope our good friends understand.

Meanwhile we are excavating for a dugout that may serve as a temporary storage place for some of the more spoilable things. The boys are working on this with a will. A short time ago they were thrilled by thinking they had struck water. Their picks and shovels broke through into a pocket of very damp sand, between banks of soft limestone rock. "Water!" shouted Rudyard. "Look, we must be close to water! A spring!" And the shovels flew and the sand flew.

But the wet sand petered out and the gritty limestone grinned thirstily under the desert sun. The boys were disappointed, but not entirely discouraged. There might be water nearby, or deeper, they argue. And this hope lends energy and a fascination to the digging.

Day before yesterday they passed another definite desert milestone by their introduction to dynamite—an intriguing compound which they never previously had seen. It was a fascinating experience to them to drill the hole, spoon out the rock dust, cut the fuse and crimp on the cap. The business of cutting a stick of Giant Powder in half (we have to use very light charges because of nearness to many breakable objects) and adjusting cap and fuse to it and tamping it down likewise was thrilling. When the little blast went off and scattered a rain of falling gravel over the juniper tree behind which we had taken shelter their satisfaction was complete.

One bit of practical demonstration is worth years of theory. They never had seen Giant Powder used before. Yet when the gravel had ceased pattering they scurried back to the hole and like old miners criticized the way the shot had been handled. It had been wrongly placed—of course. The hole should have been drilled so—and so. It should have been better tamped. And the fuse could, with advantage, have been just a bit shorter—or longer. Anyway they were one more lap along the desert trail and a new page of knowledge has been opened.

The season on Ghost Mountain is late this year. When we came back the purple finches still were fussing with their broods. And a short time after our return we were astonished to see a crested flycatcher carrying nest material into the little red roofed cement bird house that stands among the junipers down in front of the house. This is much later than usual for the flycatchers who, in the section we moved from, were already well in the midst of their home-making season. There are cactus wrens, too, that are equally busy. A cactus wren usually prefers a nice bristling Silver Cholla to nest in. But they are not too particular. Down at the mountain foot, close to our temporary camp, there is one that is working hard to complete an elaborate nest that is perched among the bayonet leaves of a tall yucca. The cactus wren, however, like some of the other wrens, has a

tendency towards making play houses and sleeping nests. Birds and animals, in this respect, are much like humans. They play and enjoy themselves by doing apparently aimless and silly things. And each creature is just a little different from its fellows. It has been said that "The proper study of mankind is man." But that should be amended a little. The proper study of mankind is all of animate—and inanimate—creation. One cannot understand man without observing and studying also the animals and birds and insects. And one cannot understand birds, animals or insects properly unless he first understands something of the reactions of the human family. The whole of creation is one great brotherhood—all beads upon the one string.

It has been said also that "One touch of Nature makes the whole world kin." And this also is true. For it is the fundamentals which establish brotherhood and understanding. Somehow this is particularly noticeable in the appeal of the desert. The desert is fundamental. It is like the ocean in this respect. But the desert is more accessible. There is, deep within the heart of every human being, a yearning to get back to the peace of the Infinite which is found only in a close association with nature. It is the call of silence. Of the peace of wide stretching, uninhabited land. The call of the wind, of the stars and the glowing sun of the solitudes. That is why the desert appeals. It holds within its heart the balm which a tired, civilization harassed humanity craves. So it is not astonishing that more and more people turn to the desert. It is a turning toward "home."

And from all parts they come. And from far places. Thus came Jade to Yaquitepec. Jade is a gemstone of mystery. Subtle. Full of strange lights and shadows. Revered of Chinese Emperors and the joy of a long line of skilled craftsmen and fashioners whose shadowy ranks stretch back and back beyond the lost horizons of forgotten time.

But the Jade who came drifting mysteriously through the creosotes of the desert was not a cold stone. We never had seen her before, and her car came unheralded and almost silently from between the junipers and the yuccas. Yet when the door swung open and she sprang lightly out with glad words of greeting and introduction she was one of the family. There are some people whom you know at first glance. You have known them a lifetime—have known them for many lifetimes. And there are others whom you will never get to know—not even if you live side by side with them for a lifetime; for many lifetimes.

Jade is an interpretive dancer. She was a lithe flame in the sun and she moved between the cactus and the crowding mesquites as pliantly and as surely as the desert wind. The footlights of many countries have seen Jade turn the bodily grace of the dance into sheer poetry. But she came back to the desert. "I love it," she said. "I've always loved it. And I'd heard of you and your mountain. And I knew we'd be friends. I just had to come."

We spent a long, happy day talking to Jade. She climbed the mountain—barefoot, to get the thrill of the earth. And she sat under our ramada and gazed off into the dim distances where the haze and the heat devils weave mystery across the lowlands. She told us of far places, and—what was more important—of deep dreams and longings. "I was in Panama," she said—and as she told of it you could see the Isthmus in all its characteristic glare of patterned color and tropic heat—"and so many times I would shut my eyes and see again the picture of just one bit of desert up here that I knew. It was as though I were standing there—watching the sunrise touch the ridges; watching the sil-

ver of the moon upon the lonely buttes. And I wanted again the peace of it all. I just *had* to come back."

Jade went away with the sunset. She had far to go and a heavy list of appointments. But she will be back. They all come back. The desert calls them. It is tired children, weary of noise and foolish gaming, who turn homeward in the quiet dusk towards Peace and Mother.

It has not rained so far, though the possibility of thunder-showers keeps us ever on the alert for the safety of our unprotected goods. We need rain, though. Precious water ran to waste last season because we were not here to attend to the cleaning of the eaves gutters. You cannot be too careful in the collection of cistern water. Any trash or impurities which may find their way into the tanks speedily renders the water unfit to drink. For this reason, unless we are at home, the catchment system usually is disconnected. So our reserve supply is of the slenderest and water hauling is a regular order of the day. We bring it to the foot of the mountain and store it in barrels, carefully covered against ants and bees. Then each day the "water gang"—which consists of the whole household—descends the rocky foottrail and loads up on the precious fluid, each, from the youngest to the oldest, carrying his (or her) capacity in filled water jars or canteens. It is a procession and a pilgrimage. But it is easier than it used to be in the old days when there were but two of us to do the carrying. How like the Pueblos and their burdens of filled water ollas we become. But is it strange? Like conditions will produce like results, customs and actions. After all we all are products of the land. And thought, and morals, and behavior are but products of geography.

While we were away the Yaquitepec packrats which previously had been extraordinarily well behaved, developed new—albeit quite normal—lines of thought. They went pack-rattish in a big way and carried spikes and nails and bolts all around the interior of the empty house. Taking them from their rightful places and building of them platforms and pyramids—and just plain junk heaps—in other places. The effect was good, in the main. But we heartlessly levelled these edifices. Even with all due consideration to one's fellow house tenants one does have to have a little free space and some rights.

And, did you ask if our three sun-tanned youngsters are shedding any tears over the flowing rivulet of water which they left behind them when they moved back to Ghost Mountain? Not a bit of it! That is over and passed. They had it—and they enjoyed it. Now they are back home. And home is home, whether the water bubbles from a sparkling spring in uncounted hundreds of gallons, or comes laboriously up a scorching rock trail in two quart lots. Perhaps they, with their desert upbringing, have acquired something of the dry-land natures of the desert lizards and the cheerful little horned toads.

#### ON FATE

*How then can Fate betray us?  
'Tis we who make our Fate.  
No, no one can delay us,  
Nor cause our sorrows great,  
But we ourselves. Fate's forces,  
Whether for good or ill,  
Stem from our inmost sources,  
And of our innate will.*

—Tanya South





# HERE AND THERE... on the Desert

## ARIZONA

### Gila Project Has Opposition . . .

YUMA—After month long hearings in house irrigation and reclamation committee in Washington, Chairman John R. Murdock (D-Ariz.) stated July 23 he feared his bill to reauthorize the Gila project and create a new Wellton-Mohawk project east of Yuma, was stymied for current session of congress. Opposition to the bill stemmed from charge of Californians, led by Rep. John Phillips (R-Calif.) and M. J. Dowd, Imperial Irrigation District engineer, that use of Gila river water for the proposed projects (Gila is tributary of Colorado) would endanger water supply of Southern California farm land and metropolitan supplies for Los Angeles and San Diego. Arizonans' contention is that Gila river, in Arizona, is exempt from interstate agreements on division of Colorado river water, and projects could proceed within limits of Arizona's rightful share of the stream.

### Woman Bags Snakes for Smoki . . .

PRESCOTT—Business men of this city who stage annual Smoki Snake Dance to perpetuate native Indian ceremonials, say that never in their 26-year history has any one person provided them with so many reptiles for the ceremony as Edna Ballau of Skull valley. A month before scheduled date of dance, she had snared and taken to Prescott 30 snakes for the Smoki tribe. When not occupied behind counter of Skull Valley store, Miss Ballau goes snake snaring. When her specially constructed cage has enough specimens to warrant the trip she takes them into Prescott for the Smokis.

### More Davis Contracts Let . . .

KINGMAN—Work was expected to be underway early in August on long-awaited Kingman to Davis dam road. Bids submitted in May so far exceeded engineers' estimates that new call for bids was issued, resulting in letting of contract to Nathan A. Moore construction company, Los Angeles, whose bid was \$245,921. At about the same time, another contract, for manufacture of hoists to be installed in spillway of dam, was awarded United States Pipe manufacturing company, San Francisco, for \$144,225. The electrically driven hoists will raise and lower the huge gates which will regulate flow of water over spillway of Davis dam, now under construction 67 miles below Boulder dam on Colorado river. Work on the \$77,000,000 project is proceeding ahead of schedule.

### Son of Famed Wetherills Dies . . .

WINSLOW—Ben W. Wetherill, son of the late John and Louisa Wetherill, died July 15 in Winslow general hospital. Following profession of his famous father, in early life he was a guide into unexplored areas of Arizona and Utah. In 1933-35 he was with Los Angeles county museum as field explorer and archeologist; he worked with Ansel F. Hall for two years as field archeologist in Monument Valley; 1937-39 he was supervisor for Indian Service at Pinon; later he owned Pine Haven trading post, south of Gallup, New Mexico, and had spent war years on essential projects.

### State Power Authority Named . . .

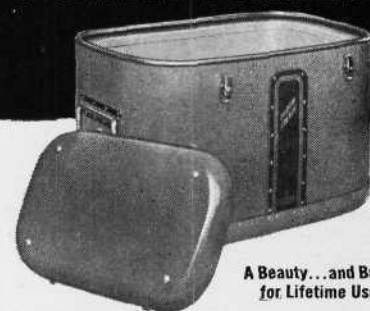
PHOENIX—Kenneth B. Aldrich, formerly a member of Bonneville power administration, has been appointed Arizona power authority, according to announcement July 12. In his new capacity he will be responsible for all power, operational and functional activities of the agency. Among first duties will be to handle plans for construction in connection with Arizona's allotment of 763,000,000 kilowatt hours from Boulder dam, and for similar work concerning Davis dam project.

### Investigate Indian Education . . .

WINDOW ROCK—Trip of a Navajo Indian delegation, headed by Chee Dodge, to Washington in May to urge government to provide adequate education for Navajo children has borne fruit. Dr. George I. Sanchez, University of Texas professor in July was making preliminary survey on 16,000,000 acre Navajo reservation.

Two new industries started in Arizona in July with incorporation of Tedsco Plastics, Inc., to manufacture plastics, wood and metal compounds, and of Arizona Motion Picture corporation, to produce and manufacture motion picture films and handle photographic supplies.

## Your "Refrigerator" Out-of-Doors PORTA-FREEZE



A Beauty...and Built  
for Lifetime Use

Here is the perfect accessory for family outings, traveling, camping, and hunting and fishing trips. Stows away snugly in car, trailer, plane, or boat. Uses either dry ice or ordinary ice. No mechanical equipment to get out of order. Beautiful two-tone, sturdy plastic exterior... sanitary aluminum interior.



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- KEEPS BEVERAGES COLD
- STORES OR MAKES ICE
- QUICK-FREEZES FISH AND GAME

The handy PORTA-FREEZE is available in two models, The SPORTSMAN (2400 cu. in. capacity) and The TRAVELER (1800 cu. in. capacity). See them at your sporting goods store, auto dealer, or department store... or write direct for complete description.

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TRADERS ASSOCIATION**

INCORPORATED

ORGANIZED FOR THE PERPETUATION & PROTECTION  
OF HANDMADE INDIAN ARTS AND CRAFTS

GALLUP, NEW MEXICO

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Classified advertising in this section costs 7 cents a word, \$1.00 minimum per issue

**ATTRACT HUMMINGBIRDS:** Plant San Juan trees (*Nicotiana glauca*) outside your windows. Never lack for entertainment from these beautiful, darting birds drawing nectar from clusters of tubular yellow flowers that sway gracefully among grey-green leaves and slender branches. Six to fifteen feet high, evergreen, bloom first year, thereafter almost continuously. Drought resistant. Not choosy as to soil. Order now for fall delivery. Four seedlings \$1, postpaid. Frank Payne, Aguanga, California.

**ARROWHEADS:** 4 very fine \$1.00; 8 fine \$1.00; 15 good \$1.00; 20 fair \$1.00; 35 damaged \$1.00. 8 fine birdpoints \$1.00. 75 wampum beads \$1.00. 150 grave beads \$1.00. Ancient pot or water bottle, fine \$4.25 (mended specimen \$2.25). Entire lot \$12.50. All prepaid. (Have also guns, coins, antiques—buy, sell, exchange.) Paul Summers, Stamford, Texas.

**INDIAN ARTIFACTS.** Arrows, Spears. No Catalog. Write Herbert Lewis, Builder of fine Indian collections, Box 4, Stafford, Mo.

**FOR SALE:** Mr. Kenneth B. McMahan's complete mineral and gem collection. Come and see and make offer. Also stock at invoice of Indian Trading Post. Mrs. Kenneth B. McMahan, Box 41, Jacumba, Calif.

**HAND WROUGHT COPPER,** in all types of metal arts for the home. Many desert gems cut and polished or rough. Inlays for the fireplace and barbecue. Send for a list of our special items. Valley Crafts Shop, 14135 Oxnard St., Van Nuys, Calif.

**INDIAN RELICS:** 4 very fine ancient Indian arrowheads \$1.00. 4 very fine bird arrowheads \$1.00. 10 nice perfect arrowheads \$1.00. Stone tomahawk \$1.00. 2 flint skinning knives \$1.00. 10 arrowheads from 10 different states \$1.00. 10 arrowheads of 10 different materials \$1.00. 2 nice spearheads \$1.00. 4 small spearheads \$1.00. 5 stone net sinkers \$1.00. 5 stone line sinkers \$1.00. 2 fine flint chisels \$1.00. 4 finely made duck bill scrapers \$1.00. 10 stemmed scrapers \$1.00. 5 rare round hide scrapers \$1.00. 5 small finely made knife blades \$1.00. 2 stemmed hoes \$1.00. 4 fine drills \$1.00. 5 fine awls \$1.00. Rare ceremonial flint \$1.00. 4 sawedged arrowheads \$1.00. 4 odd shaped arrowheads \$1.00. 4 fine drill pointed arrowheads \$1.00. All of the above 23 offers for \$20.00. Fine Stone Celts or ungrooved Axes, 50c, 75c, \$1.00, \$1.50, \$2.00 each according to size. 100 assorted Sea Shells \$10.00. Location given. 20 slightly damaged arrowheads of good grade \$1.00. 100 damaged arrowheads \$3.00. List free. Lear's, Box 569, Galveston, Texas.

**WE ARE AGAIN RECEIVING** real hand-hammered Indian jewelry from the reservation all made by top silversmiths. For our rock customers we have bought another collection of rock, making this one of the largest collections of rocks and minerals in this part of the country. Our collection of rugs, baskets and jewelry is still large despite the shortage. Come in and see us. Daniels Indian Trading Post, 401 W. Foothill Blvd., Fontana, Calif.

**CACTI AND SUCCULENTS**—From the deserts of the world. Don-Rita brand. By appointment only. Write us your needs and we will try to help you. Michael-Donnelly Cacti Gardens, 334 Lowell St., Daly City, Calif.

**COMMERCIAL LAPPING and Polishing** on flat surfaces. Finishing of bookends and polished rocks for fireplaces a specialty. Send for estimate. Joseph R. Mathieu, 1230 1/2 Boyle Ave., Rt. 1, Box 841, Fontana, Calif.

**FOSSILS**—Geological supplies, Geiger counters, thin sections, picks, hammers, etc. Omaha Scientific Supply Co., Box 1750, Omaha 4, Nebraska.

## BOOKS — MAGAZINES

**ENJOY THE GREAT OUTDOORS:** Learn wildcraft, woodcraft, Indiancraft. By experts. Articles on outdoor living. Hunting, fishing, camping, trapping. \$1.00 per year, 35c copy. Subscribe today: Wildcrafters World, Rt. 1, Alton, Kentucky.

**PAN SOME GOLD** in those Desert gulches. The book, "Gold in Placer" written for beginner prospectors has 160 pages of instructions on the modern way of HOW TO FIND IT—HOW TO GET IT. The book and three large blueprints on small equipment you can build, sent postpaid for \$3.00. Eight page booklet with pictures 10c. OLD PROSPECTOR, Box 21R62, Dutch Flat, Calif.

**CAMP AND TRAIL INCIDENTS OF PIONEER LIFE,** by W. Irven Lively. A desert book by a desert author, who has lived for fifty years in the Southwest. It has the real tang of the Desert. If you like poetry, you will like it; if you do not like poetry you will read it and forget that it is poetry as you become absorbed in its narrative and descriptive thrills. \$1.50 postpaid. Address W. I. Lively, Route 6, Box 1111, Phoenix, Ariz.

**BOOKFINDERS!** (Scarce, out-of-print, unusual books). Supplied promptly. Send wants. Clifton, Box 1377d, Beverly Hills, Calif.

**ARIZONA HIGHWAYS,** Deserts, National Geographics, other magazines, bought, sold, traded. John Wesley Davis, 1611 1/2 Donaldson St., Los Angeles 26, Calif.

**BOOKS OF THE SOUTHWEST.** For outstanding titles on the desert country—Travel, History, Desert Plants and Animals, Gems and Minerals, Indians, Juvenile — write Desert Crafts Shop, 636 State St., El Centro, Calif. Free catalog.

## LIVESTOCK

**DESERT PETS** of all kinds, wild and tame. Grail Fuller Ranch, Daggett, Calif., Phone 3489.

**KARAKULS.** Producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

## Jap Centers Yield Books For Indian Schools . . .

**PHOENIX**—In July Indians of the Southwest for the first time had enough books to go around. George C. Wells, regional Indian service educational supervisor, disclosed he had acquired more than 100,000 library and text books from abandoned Japanese war relocation centers at Poston and Rivers. After book needs of tribes in Arizona, New Mexico, Utah and Colorado were filled, surplus was distributed among other regions, a number of technical texts going to Haskell Indian institute at Lawrence, Kansas.

Yuma's building boom, despite restrictions, in July was continuing at \$100,000 per month rate, an increase of 6.1 times that of prewar year of 1940.

• • •

Chee Dodge, veteran chairman of Navajo tribal council who recently made a plea for his people's rights in Washington, suffered a heart attack in mid-July but was reported making a "good recovery" at Ft. Defiance hospital.

• • •

Sinclair M. Dean, former advertising salesman for Los Angeles Daily News and recently discharged after four years' army service, was appointed July 24 as permanent secretary of Prescott chamber of commerce.

• • •

Bright lights and thrills of movieland hit little southern Arizona town of Elgin in July, when construction of movie sets started preliminary to filming "Chisholm Trail" starring Gary Cooper.

## REAL ESTATE

**FOR SALE:** Account old age, Nevada Cinnabar and silver-lead properties. J. L. McKinney, Dyer, Nevada.

**AMETHYST CRYSTAL mine** for sale—Opportunity for disabled soldier to establish a paying business in wholesale souvenir jewelry in competition to turquoise which sells for from \$30 to \$60 lb. Amethyst does not fade. A. Pennoyer, Redfeather Lakes, Colorado.

**FOR SALE:** 35 Acres studded with oaks, on oiled highway, just 5 miles out of Mariposa. Cottage, spring, and power driven pump, only \$4300. F. A. Bonbshu, agent, Mariposa, Calif.

**FOR SALE:** \$2500.00, Eighty acres land Borrego Valley, San Diego Co. E 1/2 of SE 1/4 Sec. 36, Twp. 9 So. range six, East. Nearly level, water close to surface. Fine dates, grapefruit, alfalfa and vegetables raised in Borrego Valley. Indications of oil. Have patented title. Chan Streshly, 215 Willow Ave., Baldwin Park, Calif.

For Imperial Valley Farms—

W. E. HANCOCK

"The Farm Land Man"

Since 1914

EL CENTRO — — — CALIFORNIA



### Navajo Prayers Answered . . .

FLAGSTAFF—Whether the rains that deluged Arizona in July were in direct answer to appeal to Navajo rain gods, almost the entire state got a good soaking, even though runoff by July 23 still was negligible. Early in the month, Sam Akeah, vice-chairman of Navajo tribal council, said the most powerful rain ceremony known to the Navajo was so secret that only one person, 90-year-old Tsit Najinne, who lives near Black mesa, could perform the ritual—and he had agreed not only to perform the ancient ritual but to teach the secret chant to one other person so that it might be perpetuated. "This ceremony was last given a very long time ago," Sam said. "And it rained. We had lots of good feed then." So perhaps it was Tsit Najinne's knowledge of the magic rite that brought rain to Arizona a few days afterward, following a long and serious drought.

### CALIFORNIA

#### Bill Aids Palo Verde Drainage . . .

BLYTHE—Colorado river front bill was signed by President Truman early in July, the Palo Verde irrigation district was informed by its attorney, Arvin B. Shaw, who had been in Washington in interests of the measure. Bill is designed to provide for permanent control of Colorado river from Needles to Palo Verde. By straightening the river in that section, making it in effect a huge controlled canal, bed of river will be lowered, with expected result that Palo Verde valley will receive considerable relief from critical drainage situation which has existed.



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Desert Information

and

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The most complete travel guides ever attempted. Attractive covers in full color. Descriptions, pictures and maps to lead you to the many scenic wonders of the West.

Guides to Northern California and Nevada are available now. More to come soon.

PRICE \$1.00 EACH

Address — Scenic Guides  
Box 288 Susanville, California

### Land of Oz is in Mojave . . .

INYOKERN—Naval Ordnance Test Station here, the huge naval operation which apparently is one of the permanent fixtures of eastern California recently was called "The Navy's Land of Oz" in a Saturday article, which described its development from a tract of desert larger than Rhode Island, to an \$85,000,000 installation by V-J Day. Captain James B. Sykes, USN, commanding officer of NOTS, says, "Our job is not so much to prepare for the next war, but to help put the United States so far ahead in weapons that there will never be another war."

### No Gateway for Death Valley . . .

RANDBURG—\$400,000 stone gateway to Death Valley, provided for in will of late Mrs. Christine F. McMillan of San Francisco, was knocked out when Superior Court Judge Timothy I. Fitzpatrick broke the will. Unusual bequest, which provided that elaborate monument was to be erected from granite taken from each of 48 states, was contested by Mrs. McMillan's sister, Mrs. Elsie Haag, 85.

### "Biggest Bird" Reported . . .

BANNING—Mrs. R. T. Morton believes she saw one of the almost extinct condors as she neared the foothills while riding south on San Geronio avenue. U. S. Forestry department thinks some of the condors may nest on north face of Mt. San Jacinto, and has asked residents of this area to watch for them.

### Patton Memorial Plans Proceed . . .

INDIO—General committee meeting to start construction of Patton Memorial monument was scheduled for August 1, according to July announcement of Walter Irving, chairman of the project which was originally suggested and sponsored by Coachella Valley Parlor No. 288, Native Sons of the Golden West. Design of monument calls for large mound with a huge General Sherman tank mounted half way up, to represent all the armored divisions who served under General Patton. Along side will be a towering shaft of native iron from the hills of this region, to symbolize all the soldiers who trained in the desert under the general. Finally, a museum building will be erected, and any soldier who served under Patton will be invited to contribute relics, mementoes or trophies of World War II.

New radio station KREO, at Indio, was expected to be on the air by August 10.

Building permits for the first half of 1946 hit highest peak in history of Palm Springs. Total for period January 1-June 30 was \$5,199,865, compared with only \$562,181 for entire fiscal year of 1940-41. Largest building application granted so far in 1946 is to Bullocks, approximately \$500,000.

## A NON-DIGRESSION PACKET



A prime requisite of pleasurable motor touring is to stay on the right road and not digress to parts unknown.

Often the motorist gets lost in the mountain country and ends up miles from nowhere — which isn't the place he was headed for.

It's easy to take the wrong turn. There are no land marks in the deep tangled wildwood — when you see one tree, you see 'em all.

After driving hours in all directions, the only thing the motorist knows for sure is that he doesn't know for sure.



Of course, a motorist doesn't have to be driving on or about mountains to get nice and confused.

He can find himself astray right in the middle of a strange city.

He can try street after street and never get anywhere but lost.



Because there are so many roam-in' roads in this country, the Shell Touring Service acts as a rescue station.

Nice part of this Service is that the motorist is rescued before he gets lost.

Shell Touring Service is glad to make up a neat bundle of road maps, metropolitan maps and routings for the prospective traveler.

It's a wise motorist that gets one of these non-digression packets to take on his trip.

All he has to do is ask his Shell Service Station man and he'll get his tour guidance fast and free.

— BUD LANDIS

### Mexican Roads Promised . . .

EL CENTRO—A network of modern highways that will connect Mexicali (across the border from Calexico) with San Felipe, Ensenada, Tecate and Tijuana has been promised the people of Baja California by Mexico's president-elect Miguel Aleman, it was announced in July by Edmundo Guajardo, Mexicali attorney and one of Aleman's campaign directors. Guajardo, in making the announcement, said the proposed highways "will draw many tourists to this section. When completed it will be possible to drive to several of Baja California's most picturesque fishing resorts over fine paved roads."

### Helicopter Makes Rescue . . .

RIVERSIDE—Searching party of nine, trapped without water in 140-degree heat of Colorado desert, owed their lives to a helicopter. Army craft, piloted by Lt. Edward Frost, rescued two of the party most seriously stricken by heat, left water to sustain the others. Party, including Deputy Coroner Seymer L. Cash, Deputy Sheriff James T. Williams and seven soldiers, had left their car seven miles from wreckage of plane carrying Arthur P. Coddington, 21, of Burbank. They found the body in a canyon at dawn and started back with it, but heat halted them. Upon rescue, Cash said, "We would all have died if the helicopter hadn't dropped water for us."

## NEVADA

### River Voyagers Rescued . . .

BOULDER CITY — Battered and bruised, Mrs. Georgia White, Los Angeles, and Harry Aleson, Boulder City, were rescued by a national park service boat June 30, after an unsuccessful attempt to complete a 90-mile downstream Colorado river voyage on a homemade driftwood raft. They had been object of an aerial search when they failed to complete trip on schedule. They had spent six of the eight days clinging to a rubber life raft, as their original raft was sunk on second day out. Both wore double life preservers. Although caked with mud and painfully bruised, the two planned to make the attempt next year.

### Gunnery School to Stay . . .

LAS VEGAS — According to United Press release, army has decided to make its air force gunnery school here a permanent base for 3500 men. School trained 50,000 aerial gunners during wartime. Suitable flying weather is said to prevail 363 days a year.

. . .

Winnemucca has been making extensive improvements to insure success of its 18th annual rodeo, August 31, September 1 and 2.

### Davis Dam Will Bring

### New Game Paradise . . .

LAS VEGAS—Fishermen around these parts are looking forward to the new game paradise which will come into being with completion of Davis dam, about four years from now. Davis, latest link in harnessing Colorado river, will back up a lake, 67 miles below Boulder dam, which promises bass fishing to equal that of Lake Mead, behind Boulder. For at least 30 miles below Boulder dam, river water will remain at 64 degrees fahrenheit, suitable to trout, so that creation of another huge lake behind Davis will not impair world renowned rainbow fishing grounds, according to Guy Edwards, park service superintendent. This past spring, the service dumped 20,000 legal size fish in the Colorado; additional stocking is being done by Nevada and Arizona state game commissions.

### Up and Down with Don Coyote . . .

WINNEMUCCA — National and world events affect increase or decrease of predatory animals in Western states—and here is how it works. Recent statistics disclose there has been a general increase in stock-killers, especially the coyote, since the 1930s, when price of furs declined greatly. Coyote pelts, that are used to make many other artificial furs, sold for \$10 and \$15 in the 1920s, but price during depression dropped to \$1. Also, during depression, bounties on pelts were reduced. Then, just when prices were increasing to a point which made trapping and hunting the animals a profitable business again, World War II not only took the hunters from the range, into the services and war plants, but ammunition became scarce and traps were hard to find. Now once again, pelts are becoming more valuable and funds for predatory control work are increasing. So maybe Don Coyote will find himself facing extinction after all.

Cash balance in Nevada state treasury at close of fiscal year June 30 was \$4,989,987.87, Dan Franks, state treasurer, reported.

Fallon's postal receipts for 1945, \$43,000, automatically gave it first class status. Figures revealed 126 per cent increase over prewar high.

## NEW MEXICO

### Suggests Navajo Buy Land . . .

GALLUP—Purchase of lands adjacent to Navajo reservation on the east, with funds of the tribe and agreement to pay taxes, was urged by James M. Stewart, Navajo superintendent, at a meeting of New Mexico Association on Indian Affairs in July at Santa Fe. Such purchase, which would place the lands on the state tax rolls, should not be opposed, he said. About 13,000 Navajo and 350 non-Indians are now living in the area mentioned, he said.





## More Evidence for "Cibola" . . .

GALLUP—Further confirmation that ruins in and around Lupton, Arizona, which H. E. Miller claims are the Seven Cities of Cibola, were occupied in the 16th century has been made by Dr. Lyndon Hargrave, associate of Dr. Russell F. Colton at Museum of Northern Arizona, Flagstaff. Dr. Hargrave checked with M. A. Wetherill of Lupton on pottery finds on the Lupton sites and confirmed Mr. Wetherill's opinion that they were occupied at the time of the Coronado expedition in 1540, and probably until some time after the end of the 16th century. Earlier Dr. Arthur Woodward, Los Angeles County museum, reported that crosses and letters carved in the rocks had been put there in the 16th century.

## New Atomic Leader Named . . .

LOS ALAMOS—James H. Roberts of Tucson, Arizona, who came to Los Alamos atomic bomb laboratory from University of Chicago's metallurgical laboratory in November, 1944, has succeeded Dr. Louis Slotin as a group leader of an atomic project division. Dr. Slotin died from burns suffered when fissionable materials used in an experiment were brought together too rapidly during an experiment May 21.

## NON-RATIONED . . .

**Basketball,  
Bowling,  
Baseball  
SHOES**

**VAN DEGRIFT'S**

717 W. 7th Street  
LOS ANGELES, CALIFORNIA

## DESERT SOUVENIR

A four-color picture suitable for framing shows the covered Wagon Train of '68 crossing the desert; now on display at Knott's Berry Place, Highway 39, two miles from Buena Park out of Los Angeles 22 miles. This remarkable oil painting 20x60 feet took over one year to complete. A copy will be mailed you together with the special souvenir edition of our Western Magazine jam-packed with original drawings and pictures and complete description of Ghost Town and Knott's Berry Place. Both will be mailed with current issue of our 36-page magazine for 25 cents postpaid in the U.S.A. Thousands have already viewed this great work of art and acclaim it a wonderful contribution to the history of the West. Admission is without charge whether you stay for the chicken dinner and boysenberry pie or not. Send 25 cents for all three: picture, souvenir and current issue to Ghost Town News, Buena Park, California.

## Germans Aid Rocket Work . . .

ALAMOGORDO—Top German scientists whose pay is only enough to keep them in cigarettes are helping in desert tests by U. S. army, aimed at development of super-rockets, according to United Press correspondent Willard Haselbush, who reports army experts in charge of American rocket development have disclosed that German scientists who developed the V-2 rocket are now at White Sands proving grounds near here. The Germans living under American custody are nameless as far as the army is concerned. "We captured them in the last days of the European war and induced them to come to America with us to help in rocket research," said Col. Holger N. Toftoy, the ordnance department's chief of rocket development. "The Germans came to America of their own free will," said the colonel. "When the war ended, the Russians asked these same men to help in Soviet rocket experiments. They declined, and almost eagerly came to us." Most of their pay is being sent to their families left in Germany.

## Yes, It's a Dry Year . . .

GAMERCO—Only twice in 26 years of records at U. S. weather bureau here has precipitation in first half of the year fallen lower than this year. Not a drop of moisture was recorded in June, total for first six months being only 2.44 inches. Highest mark for this period was 8.81 inches in first half of 1941.

State of New Mexico ended fiscal year June 30 with surplus of \$531,000 in administrative funds of the bureau of revenue, beating last year's record by \$371,000.

## UTAH

## Utah Parks "Father" Dies . . .

SALT LAKE CITY—Randall Lunt Jones, 65, a man who probably has done more to glorify Utah's scenic attractions than anyone else, died suddenly at his home here July 10. A special representative for Union Pacific railroad company, he was nationally known for his colored illustrated lectures on southern Utah's national parks and monuments. Through his efforts these scenic attractions which he discovered as a barefoot boy, were made available to millions of visitors. He was born in Cedar City.

## Rubber Plant to Rise . . .

NEPHI—Formal announcement recently was made by Thermoid company, Trenton, New Jersey, that a \$500,000 rubber goods manufacturing plant would be erected on a 28-acre site north of Nephi. Early in April company officials made a preliminary announcement when options were obtained on several parcels of land. Breaking of ground was expected to start in July.

## Stove Pipe Wells Hotel

offers you

**Comfort and Relaxation in the  
Heart of Death Valley.**

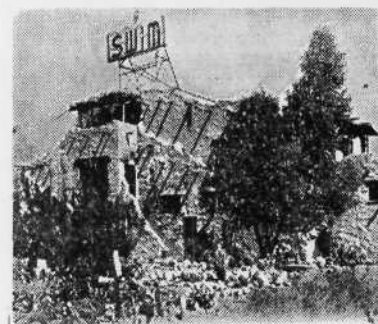
EUROPEAN PLAN — DINING ROOM  
BAR

MODERN ACCOMMODATIONS  
HOTEL AND COTTAGES

"The Oasis of Death Valley"

OWEN MONTGOMERY, Manager

## FOR SALE . . .



This is the finest swimming pool in Imperial Valley, located at El Centro; Permanent improvements; Furnished Apartments; snack bar; Profitable going business; Excellent real estate for expansion and sale; A Bargain at \$60,000, on terms.

J. R. GABBERT, Sales Agent  
Box 512 Riverside, California

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## THE HOTEL AT THE PALMS

FIREPLACE—  
ADOBES

ALL SPORTS

OPEN  
ALL YEAR



Gateway to Joshua Tree Monument

ROBT. VAN LAHR, Mgr.

For reservations write or call at  
29 Palms Inn, Twentynine Palms, Calif.  
or Call any Travel Bureau or Automobile Club

**29 PALMS  
INN**

Jacob Hamblin park, at Kanab, first of four state parks expected to be opened this year in Utah, was dedicated in June. Others are located in Salt Lake City, Vernal and Wendover.

### For Nice Things . . .

- INFANTS' AND CHILDREN'S WEAR
- LADIES' READY-TO-WEAR
- MEN'S FURNISHINGS
- FINE LINENS

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206 W. TENTH STREET PHONE 246  
LANCASTER, CALIFORNIA  
THE HEART OF ANTELOPE VALLEY  
RILLA CUSTER GALEN CUSTER

### DESERT COLOR SLIDES . . .

Gorgeous 35mm color desert slides of Palm Springs, Indio, El Centro, Borrego and Painted Desert area in selected planned picked shots by Hollywood color expert. Series include balanced clear-sharp properly exposed transparencies of Borrego Desert with wild flowers in bloom; Palm Springs, famous Seven Palms, Indio Palms, and spectacular restful views of California Painted Desert between Indio and El Centro. Series of six slides \$2.50—Six slides with Hollywood Professional (third-dimensional-effect) Viewer \$5.00. Immediate delivery by first class mail. Full desert list sent on request.

#### DESERT COLOR SLIDES

Box 345 Beverly Hills, Calif.

### Sand Painting is Lacquered . . .

SALT LAKE CITY—For first time in Navajo history, says Salt Lake Tribune, a medicine man has permitted a religious sand picture to be preserved in lacquer. Joe Lee, medicine man from Lukachukai, Arizona, painted the six foot sand picture in Salt Lake City, while a white brother saturated the bright-colored sand strokes with \$100-a-gallon lacquer. Lee worked from 1 p. m. to 7:30 p. m. creating a night-healing sand picture for his friend, Atty. John S. Boyden, long active in Indian legal affairs. Sitting cross-legged on the floor under fluorescent lights he created with vivid natural sands a prayer-painting used for centuries in his tribe to cure sickness. Unlike most religious sand paintings, this one is not erased at night. He used sand of lemon, tile, rose, grey, white and black.

### State May Buy Bushnell . . .

SALT LAKE CITY—First official notice that the army's multimillion dollar Bushnell General hospital was being considered as a solution to Utah's institutional care problems came July 15 when Gov. Herbert B. Maw announced he would appoint a committee to study advisability of acquiring the 3600-bed hospital. The base was declared surplus July 1.

### Meet to Divide Colorado Water . . .

SALT LAKE CITY — Representatives of five Upper Colorado River basin states were scheduled to meet here August 1 to perfect a permanent organization and begin drafting a compact for division of basin waters. States will endeavor to allocate 7½ million acre feet of water, the amount apportioned from entire flow of Colorado river basin to upper basin states in a previously negotiated compact which determined amount of water to be allocated between upper and lower basin states. Five states involved in present meet are Wyoming, Colorado, Utah, Arizona and New Mexico. Federal representative in negotiations, appointed by President Truman, will be Harry W. Bashore, retired commissioner of reclamation.

### Boatman Meets New Challenge . . .

MEXICAN HAT—Searching for new, faster "white water" to master with his 16-foot cataract boats—and to disprove belief that Salmon and Snake rivers cannot be negotiated in small craft—Norman Nevills of Mexican Hat, rated world's No. 1 fast water man, with seven companions, set out in July for upper reaches of Salmon river where he was to start a trip of 275 miles down Salmon and Snake rivers—a distance he hoped to cover by August 2. Mrs. Doris Nevills, who accompanied the party to Idaho, will keep the boats supplied at points where contact can be made.

### Utah's Golden Anniversary . . .

SALT LAKE CITY—For first time in four years, all buildings and facilities of state fair grounds, which during wartime were turned to essential use, will be open for the state exposition, which will commemorate Golden Anniversary of Utah statehood September 16-22. Special tribute will be paid Donner party, who 100 years ago camped on site that is now the home of Utah State fair.

### More "Projects" Than Water . . .

VERNAL — Twenty-seven potential reclamation projects involving estimated cost of \$319,840,000 are described by bureau of reclamation in its Colorado River Basin report, as possibilities for ultimate development of water resources in five major drainages of Utah and Colorado. Ten of the potential projects are in Uintah basin of eastern Utah and five are in Price and San Rafael river basins of southeastern Utah. The projects would be mainly for irrigation but six would be primarily for power production. Total number of projects call for more water than is available in Colorado river tributaries on which they are located. Therefore, a selection must be made of those which will best utilize supply available.

## REPTILES . . . . . Picture Contest

Snakes, lizards, tortoises—any creature that comes under the general heading of "Reptiles" is an eligible subject for Desert Magazine's September photographic contest. The judges prefer pictures taken in the wild, under as natural conditions as possible. Name of the subject and the place where taken should accompany each entry.

For the winning picture \$10.00 will be paid; for second place \$5.00. For each non-winning picture accepted for publication Desert will pay \$2.00. Entries must reach the Desert Magazine office not later than September 20, and the winning photographs will be published in November.

### HERE ARE THE RULES

- 1—Prints must be on black and white, 5x7 or larger, printed on glossy paper.
- 2—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 3—Prints will be returned only when return postage is enclosed.
- 4—Contests are open to both amateur and professional photographers. Desert Magazine requires first and full publication rights of prize winning pictures only.
- 5—Time and place of photograph are immaterial except that they must be from the desert Southwest.
- 6—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.
- 7—Each photograph submitted should be fully labeled as to subject, time, place. Also as to technical data: shutter, speed, hour of day, etc.

ADDRESS ALL ENTRIES TO PHOTO EDITOR, DESERT MAGAZINE,

THE *Desert* MAGAZINE  
EL CENTRO, CALIFORNIA



# GEMS AND MINERALS

ARTHUR L. EATON, Editor

## WICHT PROPERTY TO BE SILVER MINE BASE CAMP

Board of directors of Searles Lake gem and mineral society have leased the Chris Wicht lode mining claim and the buildings and fixtures thereon to the American Silver corporation.

Lease agreement calls for yearly payment of \$600 in advance, for performance of assessment work, and for erection of a monument to the memory of Chris Wicht, by the American Silver corporation. Lease is for a period of 50 years, beginning July 3, 1946, and on expiration or cancellation of lease, all improvements built on or into the premises revert to the society.

American Silver corporation will start mining operations at Panamint City and require the Chris Wicht property as a base camp for use in rebuilding the road whenever it washes out. They expect this to occur twice a year. Danger periods for washouts are from July 5 to September 15, and from December 15 to February 15. Any visitors to Chris Wicht's may run into danger or into road building crews during those periods. Club members will be more than welcome at any other time. Though nothing was stated in the lease agreement, arrangements might be made to hold barbecues, picnics, or other outings on the premises.

Road to Panamint City is now in process of being rebuilt, and rockhounds soon will have an opportunity to drive all the way up. No matter how good the road is, however, there are still 20 per cent grades in some places.

## SEATTLE COLLECTORS HOLD HANDMADE JEWELRY SHOW

Annual show of handmade jewelry highlighted June 18 meeting of Seattle Gem Collectors' club, held in chamber of commerce building. Tacoma Agate club cooperated by bringing jewelry for a guest display. Floral and leaf designs and an array of small land and water animals made unique ornaments. It was especially interesting to note that the amateur workmen were able to originate designs to match individual stones.

## LOS ANGELES SCHOOLS HAVE FREE MINERAL COURSES

Adult Education program of Los Angeles City schools is offering tuition free classes in Mineralogy-Geology in three of the evening high schools, starting September 16. Classes meet at North Hollywood Evening high school on Mondays, at Hollywood Evening high school on Tuesdays and Thursdays, and at Belmont Evening high school on Wednesdays and Fridays.

During the fall term the work will consist of a study of the principles of geology; origin and occurrence of minerals; prospecting methods; and a study of the nature and properties of minerals, including laboratory work in the identification and recognition of the important types. The classes will be under the able direction of John Benkart, a mineralogist, author and experienced teacher.

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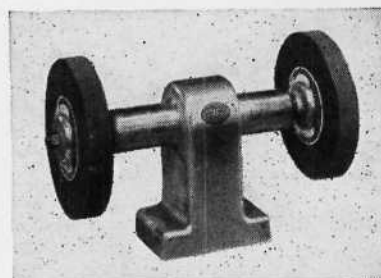
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**ARIZONA WOOD** in red, yellow jasper, lovely agate. Each piece cuts one to several cabochons, 15c, 25c, 50c. List other rocks, crystals, for stamp. Postage extra. Katharine M. Gohn, Box 481, Mesa, Ariz.

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**CAN SUPPLY** Montana moss agate, agatized wood, jasper, jade and sapphires. The sapphires are small and are put up approximately 75 in a glass vial with two or three Montana rubies included for \$1. Good grade agate \$1. per pound plus postage. Jade in various shades of green \$3. per pound and up. E. A. Wight, 217 Hedden Building, Billings, Montana.

**THE DESERT RAT'S NEST** is back again with a good supply of faceting and fine cabochon material, full line of Brazil minerals and many rare gems. Write me for prices, money back guarantee. Sapphires, Beryls all colors. Topaz and Tourmaline, both foreign and domestic. Ceylon shipment in Sapphires up to 1 ounce wt. Star and white, moonstone. Fine matrix specimens also. Good line of specimens. Location, between F & G Streets on Fourth. Mailing address, P. O. Box 1123, Encinitas, California. Visitors welcome. Geo. W. Chambers.

**WANTED: TO BUY** and sell crystals and superbly colorful rare minerals, strictly top grade. Sam Parker, 2160 East Van Buren, Phoenix, Arizona.

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## AMONG THE ROCK HUNTERS

Los Angeles Mineralogical society, at its June 20 meeting, heard Melvin Lever speak on Electro-logging and radio activity logging. One of the movie reels he showed was on Gun perforating. These are phases in process of finding and obtaining oil, as developed by Lane Wells corporation.

San Jose Lapidary society has made a preliminary announcement that its Second Annual Gem show will be given in the spring of 1947.

Searles Lake gem and mineral society voted to forego 4th of July barbecue at Chris Wicht's for lack of tires. A hike to Telescope peak was scheduled for June 22-23.

Bertha E. Schell, Camp Wood, Arizona, recently discovered curious dendrite formations. The matrix had weathered away leaving the tiny dendrite "trees" unbroken. She exhibited the trees at a meeting of the Yavapai gem and mineral society, Prescott, Arizona.

Colorado mineral society, Denver, invites out of state rockhounds to join it in summer field trips. Georgetown-Silver plume area will be visited August 18, northern Colorado Niobrara section September 22. Secretary is Alice Gathercole, 4557 Zuni, Denver 11.

Umpqua mineral club, Roseburg, Oregon, enjoyed one of the most delightful meetings of the year, July 11, when Mrs. Essie Koentz invited members and guests to her home in Edenbower to meet Mr. and Mrs. Albert Hake of Los Angeles, members of Southwest mineralogists and Los Angeles lapidary society. The Hakes have been touring the Northwest in car and trailer. Hake, a cabinet maker, has contrived an ingenious way to carry and exhibit specimens. Shallow wooden trays are hinged in the center and when closed resemble books. Name of contents is printed as title of book. The "books" fit snugly in large wooden carrying boxes.

Victor M. Arceniega, mining engineer, geologist and teacher, was scheduled to speak on megascopic determination of rocks at July 18 meeting of Los Angeles mineralogical society.

San Jose Lapidary society has rented a post-office box, to which all correspondence should be directed. This is to simplify the situation when new officers are elected. Address is: San Jose Lapidary Society, Box 942, San Jose, California.

Monterey Bay mineral society elected the following officers at July meeting: T. G. Emmons, president; A. W. Flippin, vice-president; A. L. Jarvis, Watsonville, secretary; Alice R. Everett, treasurer; D. E. Perry, director; previously elected directors still serving are H. M. Samuelson and R. L. Dey. A. L. Jarvis and Charles Murphy reported on federation convention. Members enjoyed bureau of mines film—Arizona, its mineral resources and scenic wonders.

O. P. Avery of Los Angeles Lapidary society talked on stalactites and petrified wood at June meeting of San Fernando Valley mineral and gem society, North Hollywood. Avery was one of the first to visit Eden valley and possesses many unique specimens from that location. Taylor discussed with the group minerals having hardness of 7 and 8. Clark gave door prize talk on tourmaline. Forty members and friends field tripped to Tick canyon for howlite, agate and bloodstone.

## MONTANA AGATE . . .

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Mr. and Mrs. L. E. Perry, Pasadena, have been taking a well earned vacation, camping on Mt. Laguna. Both worked at lens polishing during the war. Lon is looking for harder-than-7 stones to facet cut. He is displaying a pair of gorgeous mystic blue aquamarines which he recently cut and polished.

Imperial Valley gem and mineral society met July 20 at home of Mr. and Mrs. C. K. Patton for a potluck supper. Many members are out of the valley for the summer months, and vacation meetings are held at private homes.

Mrs. A. Wade, secretary, Orange Belt mineralogical society states that July meeting was a covered dish dinner held in Fairmount park, Riverside, California. Reports from California federation convention were given by members who attended. Col. M. Mills, Dr. Warren Fox and Capt. Kennedy displayed gems and unusual types of minerals. I. V. Graham has invited members to his home in San Bernardino for August meeting.

Word comes from Curator's office of San Diego museum that in the near future its unique postwar reconversion problems will be solved and the museum open to the public.

Orlin J. Bell, president California federation of mineralogical societies, has appointed Ernest Chapman to act as chairman of a committee to compile a history of past conventions. Report is to deal solely with behind the scenes, overall, detailed planning and execution. It will constitute an experience record of value to convention hosts. A chapter will be added each year.

San Diego mineralogical society has suspended activities until Friday, September 13.

At August meeting of Los Angeles Lapidary society, held at Police academy in Elysian Park, society's history during past year, under leadership of A. B. Meiklejohn, retired president, was given by Leland Quick. Although the 1946 public exhibit had closed but a short time before, plans were being formed for an improved show next year. Mr. McPhail of Standard Oil company showed movies of Alaska and Grand Tetons.

In main foyer of Chicago Museum of Natural History is huge crystal of beryl, found at Albany, Maine. It weighs, according to Marquette Geologist bulletin, 950 pounds, measures four feet high, 2 feet across base, is of greenish-blue color.

Long Beach Mineralogical society planned to show a picture on wildlife at July 10 meeting. At June board meeting the election method was changed. Heretofore, members elected a board of directors, who selected officers from the board members. By the new method, members will elect officers by direct vote.

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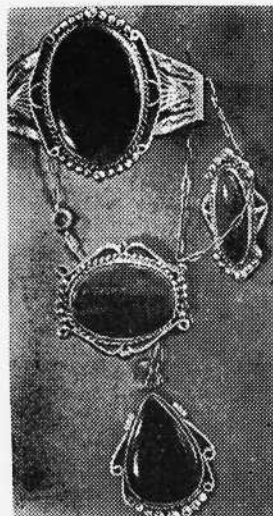
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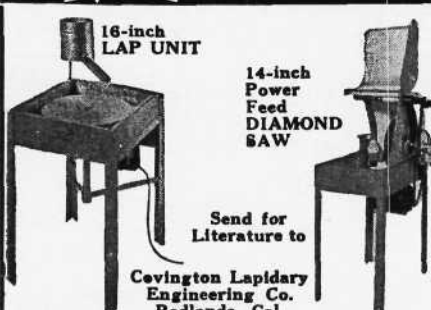
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Three members of San Jose lapidary society, Charles Murphy, Walt Sutton and Mr. Addison, made a trip recently into Sonora, in search of moss opal. Trip was uneventful, except for tired backs and sore hands. A great quantity of material was dug from the vein, but careful examination showed that only about 200 pounds was good for cutting. This was divided into four portions, one for each explorer, and one for the society grab bag.

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## Cogitations . . .

Of a Rockhound

By LOUISE EATON

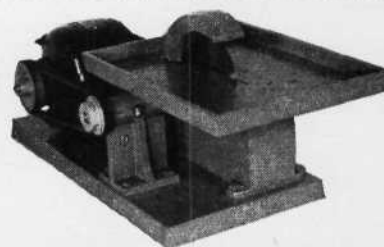
Therz shure gettin to be a lot uv rockhouns scattered all over th country. Espechully in out-uv-th-way places. Maybe it's only that they shows more in isolated districts than in cities, but most enny little general store has a pile uv rox an' a few polished specimens tucked away somewhere. Th folkes'll most genrally tell yu either that they're jus startin to get interested in rox or that they've bin rockhouns practically all their lives.

A nuther nice thing about rockhouns is that therz no caste system amung um. Neither money nor ejucation (or lack there uv) counts for 'r against a fella. It's just what he is hisself an' what he has in his heart that's important. No true rockhoun could be a snob. Anyhow when a group gets to field trippin all are on the same level—ground level—an' th' most important purson is the wun with the most luck 'r keenest eyesite 'cause he finds the best specimens.

New officers of Los Angeles Lapidary society, installed in July, are: Benton MacLellan, president; John Gaston, 1st vice-president; Jessie Quane, 2nd vice-president; Mary C. Ryan, secretary; Clarence Chittenden, treasurer; Leland Quick, historian. Mrs. E. Grace Peters, publicity chairman, announces the society now has a permanent address: Box 2184 Terminal Annex, Los Angeles 54, and letters from friends and new acquaintances of the society will be welcomed.

Re-discovery of a Lost Art was subject of address by Leland Quick at July meeting of San Jose Lapidary society. He sketched recent history of revival of gem cutting as a hobby and art and as a mode of self-expression. Mr. Quick in 1940 organized Los Angeles Lapidary society, the first of its kind in the world.

Mrs. Grace Dearborn, of New England federation, was recent guest of Los Angeles Mineralogical society.



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Gems and minerals editor would appreciate receiving lists of officers, and time and place of meetings of recently organized societies.

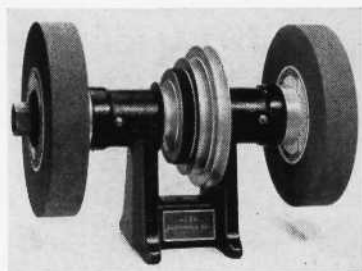
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Marquette Geologists association publishes, in its monthly bulletin, brief notes about various members and their special interest in collecting. Recent sketch was of charter member Jerry Herdina, Chicago, who specializes in Coal Measure fossils, flora and fauna of Wilmington area. He has a complete collection of these concretionary fossils comprising plant and animal remains of the Pennsylvanian coal age, approximately 250 million years old.

Minnesota mineral club, Minneapolis, in its bulletin, Rock Rustler's News, introduces its officers in a chatty informal manner. Adolph Heumann, vice-president, is subject of recent "portrait." His 15-pound agate is champ in the club.

E. W. Suring of Hollywood is originator of a unique specimen set of California minerals. Set consists of a 7 1/4 x 9 1/4 card on which is printed an outline map of the state with small but excellent specimens of minerals glued to the location at which the ore is found. There are 31 specimens ranging from kyanite mined in the southeastern corner of the state to the gold ore that comes from the northern sierras, including lead, sulphur, beryl, opal, fluorite and all the more common among the 60 minerals found in the state.

Mrs. Marie Lackie talked on geologic occurrence of California agate at July 11 meeting of Hollywood lapidary society, held in Plummer park, 7377 Santa Monica boulevard. Mrs. Lackie is research geologist for Shell oil company and a charter member of Los Angeles lapidary society. The group enjoyed a trip to Horse canyon June 23.

Searles Lake gem and mineral society has decals representing a hanksite crystal, made in club colors, gold and purple, now available for the cars of members.

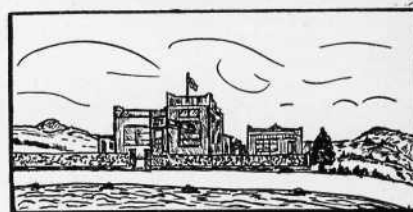
On July 15 Leland Quick organized a new lapidary society at San Pedro. New club began with membership of 38.

Minneapolis mineral club will sponsor a class in jewelry making this fall. The teacher is to be Douglas La Tond, a manufacturing jeweler. Meetings will take place in the metalcraft room of Miller vocational high school. Membership will be limited by the size of the room to 20. Registration fee \$10.00.

### TRUE OR FALSE ANSWERS

Questions are on page 30

- 1—False. Higher altitudes are cooler.
- 2—True. 3—True.
- 4—False. First navigator of the Grand Canyon was Major Wm. H. Powell.
- 5—False. Palms without moisture at their roots would die quickly.
- 6—False. Wupatki national monument is in Arizona.
- 7—True. 8—True. 9—True.
- 10—False. The Colorado desert is in Southern California.
- 11—True.
- 12—False. Comstock lode was located near Virginia City.
- 13—True.
- 14—False. Natives of Snowflake often see snow in winter.
- 15—False. Gen. Kearny's Army of the West crossed the Colorado at Yuma.
- 16—True.
- 17—False. Those velvet-like pads have thousands of tiny spines.
- 18—True.
- 19—False. Father Escalante is credited with being the first white explorer of Utah.
- 20—True.



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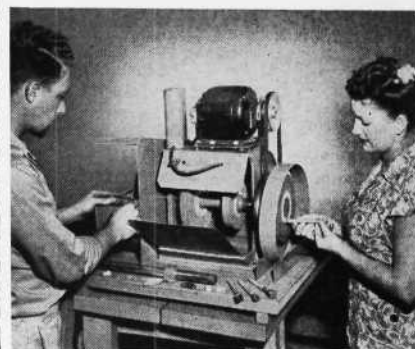
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# AMATEUR GEM CUTTER

By LELANDE QUICK

What is happening in the gem cutting world? How has peace affected it? Several facets of these questions are polished very interestingly by correspondents who write me from all over the country. Let's begin with the story of the soldier who dashed into a house near Rheims during the invasion of France. The owner had fled without taking the book he had been reading at the time. The book was Baxter's *Jewelry, Gem Cutting and Metalcraft*. Then we consult the interesting correspondence of Madeleine Burrage of Kennebunkport, Maine, who accuses many of the professional gem cutters of downright victimizing. "When you feel that you really can trust them with something superb they get the building janitor and hand over your best specimens to him," she writes. Miss Burrage is enthusiastic about the possibilities of the GI in the gem cutting and jewelry trade. She taught many of them jewelry making at Halloran hospital on Staten Island, New York, during her two years of this work. She says, with emphasis, "There wasn't anything they couldn't do and everything had to be perfect. We had everyone who had ever fooled with a car or a radio (and that is practically 100 per cent of American boys) and they wanted to do precision work, so that I have hope in the future for really good work."

So great was the interest in gem cutting among convalescent sailors that the navy department sent Captain Charles Cox from Alameda, California, to Washington, D. C., for a two day visit and conference. That was more than a year ago and the captain is still there. In the meantime, plans have been made to establish 150 rehabilitating gem cutting shops in every section of the country. Captain Cox's greatest difficulty is in equipping the shops and securing adequate instructors. Ruth Mitchell, sister of the late General "Billy" Mitchell, who was prominent in the Yugoslav resistance organization of the late Mikhailovitch, is now carrying on a project of training legless veterans in gem cutting. The government has recognized the gemological course of the Gemological Institute of America as part of the postwar GI training program and is paying for the courses.

All of this activity is built around the veteran and principally around the disabled veteran. There still is no school in America, outside of high school courses, where the civilian can learn gem cutting as a vocation. Therefore, the obvious is happening. Average Man is learning his gem cutting through mineralogical and lapidary societies and then turning professional, so that all over the land innumerable lapidary shops are springing up catering to the public, a public increasingly aware of the possibilities of our native semiprecious stones. The tourist has been acquainted for some time with turquoise, petrified wood and agate jewelry but now any road leading anywhere has its stands where jasper and many other gems are cut and sold. This new tourist interest in gems carries over into Canada too, for when I was recently at Banff I saw for sale the best Virgin Valley opal I ever have seen anywhere outside of a museum.

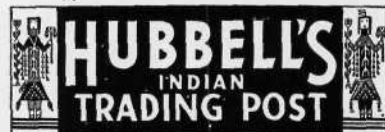
This trend is a matter of concern to many in the business and their voice is best expressed by a steady correspondent often quoted on this

page, Loran Perry of Pasadena. Perry writes, "It was my thought to make a place for some GI Joes in the gem cutting trade where they would be able to maintain a family and home after the American pattern. What do we have really? Everyone who can get a motor and arbor or a faceting head and a lap is in business. You can get cabochons cut from 10 cents to five dollars. The same applies to faceted stones. What chance has the returned soldier or anyone else for making a living when amateurs are all cutting gems for resale for practically nothing—and they do a good job too. How can we give this gem cutting business a face lifting?"

It was Mr. Perry who did so much in switching the amateur gem cutters to a professional status by having them transfer their activities to the solving of one of the greatest bottlenecks in the defense program—the cutting of quartz crystals for radar, etc. Those people all made money and I think that the present crop of gem cutters have the same privilege. Things will simmer down and in the years to come lapidaries with imagination and skill will survive in the business world as the law of supply and demand creates a proper balance. After all, the "face lifting" already has taken place and America has become the gem cutting center of the world. I believe it was the "amateur" who brought most of it about and the new "amateurs" will keep it going.

I don't believe the professional lapidary has anything to fear. I know from a personal survey that there probably isn't a professional lapidary in the country who is looking for work. They all are frantic with back orders—and they're getting two and three times as much for their work as they did five years ago. I doubt if there is an amateur lapidary in the land who hasn't visited a professional after a time to have work done that was beyond his ability or visited a jewelry store to buy precious stones which he would not otherwise have bought. He buys because of his increased knowledge and love of the gems of the earth. Knowledge of the stones and how to cut them on the part of the public never has harmed the people who make a business of selling them. There are few people who dabble at painting who do not eventually purchase for themselves a painting that is beyond their own ability. There are few persons who turn out a homemade bookcase who do not possess in their homes better furniture than they ordinarily would have because of their appreciation of the artistry behind it acquired through "doing." Cutting and selling a few gems at two or three dollars each still doesn't turn an amateur into a professional any more than publishing a piece of poor doggerel makes a man a real poet.

The jewelry trade believes this too, for they widely quoted in their press the following paragraph from my page in the February, 1945, *Desert Magazine*. "Most amateur gem cutters, like most laymen, are intensely ignorant of gems until they begin cutting themselves and then the interest is stimulated and they glean knowledge about gems which they willingly pass on to others until their circle of friends becomes an informed group. Good merchandisers of jewelry have nothing to fear from the knowledge possessed by the customer; those who prey upon the ignorance of the public deserve to be exposed."



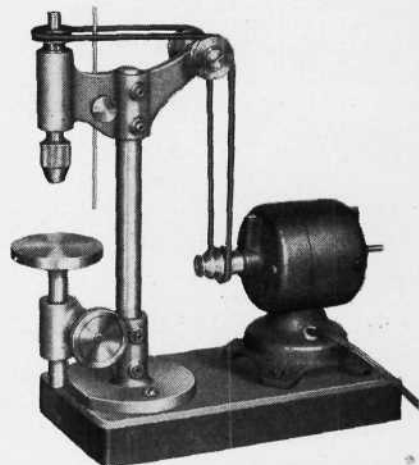
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By RANDALL HENDERSON

ONE HOT summer afternoon two years ago this month the General in command of our North African Wing flew out to my station on the Sahara desert for one of his periodic inspection tours. My only transportation was a jeep, so I invited him and a couple of his aides to climb in and we went out to look the camp over.

We inspected the runways, visited the fuel dispersal area, the barracks, the mess hall, the motor repair shops and then we drove out in the wadi to see the new well our Arabs had put down to improve our water supply. The well was okay, but when I started to leave the place the jeep dropped down to its axles in sand.

It was one of those embarrassing moments. You know how it is—you don't like to ask the General to get out and start shoveling sand. Not when the temperature is around 118 degrees, anyway.

And I didn't, either. I shifted to the four-wheel drive, and pulled the lever that put the car in compound low—and the little old jeep got us out of that hole in less time than it takes to write about it. That day I resolved to own one of those jeeps when the war was over.

Last month I went to one of the war surplus sales armed with a veteran's priority. And now I have the jeep. Arles Adams has built a special top for it, and before many weeks we'll be prowling out over the desert looking for some of those palm oases and gem fields the prospectors have been telling me about, and which I haven't visited yet. And in due time *Desert Magazine* readers will share this information with me.

\* \* \*

California and Arizona are having another of their cat and dog fights over the allocation of the waters in the Colorado river. These two, and the other five states in the Colorado river basin have been at it for 30 years.

California started the latest rumpus. The Californians sent a delegation to Washington to try to block one of Arizona's irrigation projects. In past years Arizona has been equally aggressive in its efforts to restrict California's water allotment from the Colorado. At other times the upper basin states have been aligned against the lower basin, and vice versa. And when there's nothing else to do they gang up on Mexico which also is a claimant for Colorado river water.

As a matter of fact there is no shortage of water in the Colorado today. Millions of acre feet of water flow into the Gulf of California unused every month. But the engineers say this will not always be true—that there are more lands which ultimately can be brought under cultivation than water to irrigate them.

And so the battle goes on year after year. I daresay enough money has been spent on litigation and conferences and propaganda to finance a \$100,000,000 irrigation project.

The tragedy of all this is that while the states carry on their

endless bickering, the American citizen pays and pays. If one state gains an advantage, it is at the expense of the citizens in another state. From the standpoint of United States as a whole there is no gain—only loss, in the costs of litigation and in delays. We are all paying the penalty for permitting the old states rights feud of the colonial days to be projected into an age when the theory of state sovereignty is almost as antiquated and many times more harmful than the ancient belief that the earth was flat.

Within a smaller sphere we are perpetuating here in the United States the same silly barriers between geographical sectors which in the world-wide sphere divide people into nations and keep civilization in a constant state of turmoil. Excessive nationalism breeds war. Over-emphasis on state lines within the nation creates a milder form of the same evil. The difference merely is one of degree.

When a farmer moves to 80 or 160 acres of land under an irrigation project his interest mainly is in the productiveness of the soil, the cost of irrigation, and the accessibility of markets. Whether the land is in Utah or California or Arizona is a secondary matter. State boundaries neither add nor detract from the fertility of the land nor the happiness of the home that may be built there.

Under the present system of allocating the water according to state boundaries, a farmer may be required to assume a reclamation debt of \$300 an acre for land in California when equally productive land in Arizona could be served with irrigation water for \$210 an acre—or vice versa.

How much more equitable and sound would be the program from the standpoint of the man who farms the land if the leaders of the seven states would say to Secretary Krug of the Interior department: "We petition your department to classify the potential irrigation projects in the Colorado basin according to productiveness, cost of irrigation per acre, and availability of markets. We will then agree that regardless of state lines, the development of these lands should proceed in the order of their merit."

Under Hitler's scheme, the individual was sacrificed for the glory of the State. When the vanity of state politicians takes precedence over the interest of the American citizen-farmer in the allocation of Colorado river water are we not guilty of the same bad logic?

\* \* \*

Before this issue of *Desert* comes off the press I will be on my way to the Four Corners region of southeastern Utah to spend three weeks with one of Ansel Hall's archeological and exploring expeditions. Much of southern Utah is still a land of mystery except to cowmen, prospectors, Indians and a few venture-some explorers. Out of this trip I hope will come some interesting glimpses of that desert wilderness for *Desert's* readers.





## AUTHOR VIEWS WEST WITHOUT ITS GLAMOR

"It's a land of fable, myth, tradition and the lack of it, of extremes of heat and cold, wetness and dryness, lowness and highness, of promise and bitter disappointment, of million-dollar schemes by the countless people who own no more than a jalopy or the down payment on a radio." Contrary to the expectations from this somewhat glorified generalization about the West, the book *IF THE PROSPECT PLEASES*, in which this quotation appears, is a practical, 1946 guidebook to a practical, 1946 West. The subtitle, "The West the Guidebooks Never Mention," also is a little misleading—instead of unfolding the mysterious or secret, author Ladd Haystead sums up facts and figures to explain the modern West.

The author says his purpose is to give to service men, war workers, and others who are tired of living as they have been, a thorough and critical view of the West as it really is and not as it is romanticized. To this end Mr. Haystead, farm editor of *Fortune* magazine and native Westerner, views the scene and interprets the signs for the future. Industries, agriculture, professions, tourist trade, climate, and opportunities he describes in a virtually unbiased and well informed manner. He proposes solutions to the problems facing the newly matured West in its postwar economy, and for the most part his appraisals and conclusions are convincing.

For those interested in the future of the West, this book deserves some attention. As a well qualified spokesman, Ladd Haystead presents the region to the outsider with tempered enthusiasm.

University of Oklahoma, Norman, Okla. 208 pp. \$2.50.

—Alton DuBois

## GUIDEBOOK TO UTAH'S HENRY MOUNTAIN REGION

For a number of years prior to World War II, Charles B. Hunt, member of United States Geological Survey, with a competent staff, studied the Henry Mountain region in southeastern Utah. First published results of this work now are available in *GUIDEBOOK TO THE GEOLOGY AND GEOGRAPHY OF THE HENRY MOUNTAIN REGION*, by Hunt, first of a series to be issued by Utah Geological society.

Most important is a series of maps, the first available for the region since the

U.S.G.S. maps issued 50 years ago, and long out of print, besides being seriously erroneous.

This enchanting desert region differs strikingly from the more familiar deserts of California, Arizona, Nevada and western Utah. The desert here is broken by a confusion of great bold escarpments which form beetling cliffs, deep canyons and long impassable ridges or reefs. The stone faces are highly colored and are carved into a variety of pillars, arches and alcoves which never fail to charm the traveler, even though they make his progress unbelievably difficult. Above the brilliant cliffs soar the five lofty peaks of the Henries, with mantles of pine and spruce forests, sharp dikes and rock castles, and rugged slopes and ridges through which clear icy creeks find their devious ways. And between the vast mesas and frowning rim-rock is a variety of intricate and delicate badland pinnacles and forms, carved out of brightly colored shales and clays, in themselves worthy of serious study, but overshadowed by the magnificent architecture and flaming color of the region.

None of the subtle colors of the Mojave, nor the delicately traced slopes, or grey ruggedness of the Colorado desert, win the eye here. This country is too bold; the colors are strong, and do not grade gently from one to another. Blue, gold, red, chocolate, green—they blaze almost threateningly into the valleys. Even the more delicate tints—pink, salmon, azure—take on a forceful tone.

The rough topography and extreme aridity make travel difficult. Yet Hunt outlines five tours in detail, covering all the roads of the region. Two of them, along State Highway 24, may be traveled in fair weather by almost any adventurous tourist who is not dismayed by rough earth roads. For the remaining three, both car and driver should be selected for rough desert travel. None of the tours is passable in any but fair weather.

Notes on geography, history, culture and resources of the area are included, with a summary of the botany. Primary purpose of the book, however, is a summary of the geology, including stratigraphy, structure, petrography, topography, and geological history of the region. The same subjects are to be covered, in detail, in a report being prepared for publication.

Utah Geological Society, Salt Lake City, Utah. 51 pp., 12 maps and sketches. \$1.50.

—Ernest H. Lyons, Jr.

## ROADRUNNER LATEST IN MESALAND SERIES

Cocky, the Roadrunner, was just what his name implied. He could afford to be saucy, because all the other animals were so amused by his funny antics that they never seriously tried to kill him for food . . . and even the hunters thought him so funny they wouldn't shoot him.

When he first arrived at the Mesaland village to find a home for his family, the inhabitants couldn't believe their eyes. He was the queerest looking creature . . . a bird who would run instead of fly. And the footprints he made looked as if he might be going either forward or backward!

Many of his amusing experiences in Mesaland are related in the book *COCKY*, accompanied by clever and instructive illustrations of animals and plants of the Southwest.

This is the fourth in the Mesaland series by Loyd Tireman, professor of education at University of New Mexico. Previous books in the series are *Baby Jack and Jumping Jack Rabbit*, *Hop-a-Long* and *Dumbee*.

Published by the University of New Mexico Press, Albuquerque, 1946. \$1.25.

—Evonne Riddell

## BOOK BRIEFS . . .

*This is New Mexico*, a compilation of 45 factual articles on the state, is scheduled for fall publication according to The Rydal Press, Santa Fe. Its subjects will include climate, history, outdoor activities, Indians, towns, and numerous others. Among authors to be represented are Ruth F. Kirk, Harvey Fergusson, Ernie Pyle, Agnes Morley Cleaveland, J. Frank Dobie and Dr. Ross Calvin. George Fitzpatrick, editor of *New Mexico* magazine, is compiler and editor.

John Day company announces for publication soon *The Winged Serpent*, an anthology of American Indian prose and poetry, by Margot K. Astrov who has been making intensive anthropological studies of American Indians.

New volume in American Mountain series is *The Pacific Coast Ranges*, edited by Roderick Peattie and published by Vanguard Press, at \$3.75. Covers mountains from Puget Sound to Southern California. California mountains and their people are given lively interpretation by Idwal Jones. Book is enriched by superb contributions of Donald Culross Peattie on wild flowers and the Spanish missions. Among other chapters are those on wild life, written by Aubrey Drury, on the foothills by Judy Van der Veer, and on geology by Daniel E. Willard.



## *American Grown Dates--in Coachella Valley* **CALIFORNIA**

The middle of March the pollen is taken from the male palm and dusted on the female blooms. In due time the bunches are thinned to give size and in early August they are bagged as protection against rain and birds. The picture above was taken in September and the fruit is ready to pick. This palm will produce 250 pounds of fruit and as they are picked one date at a time many pickings are required to complete each bunch. They are then cleaned and graded. A great many tons of the TOP GRADE are required to supply our customers each year.

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