

THE

Desert

MAGAZINE

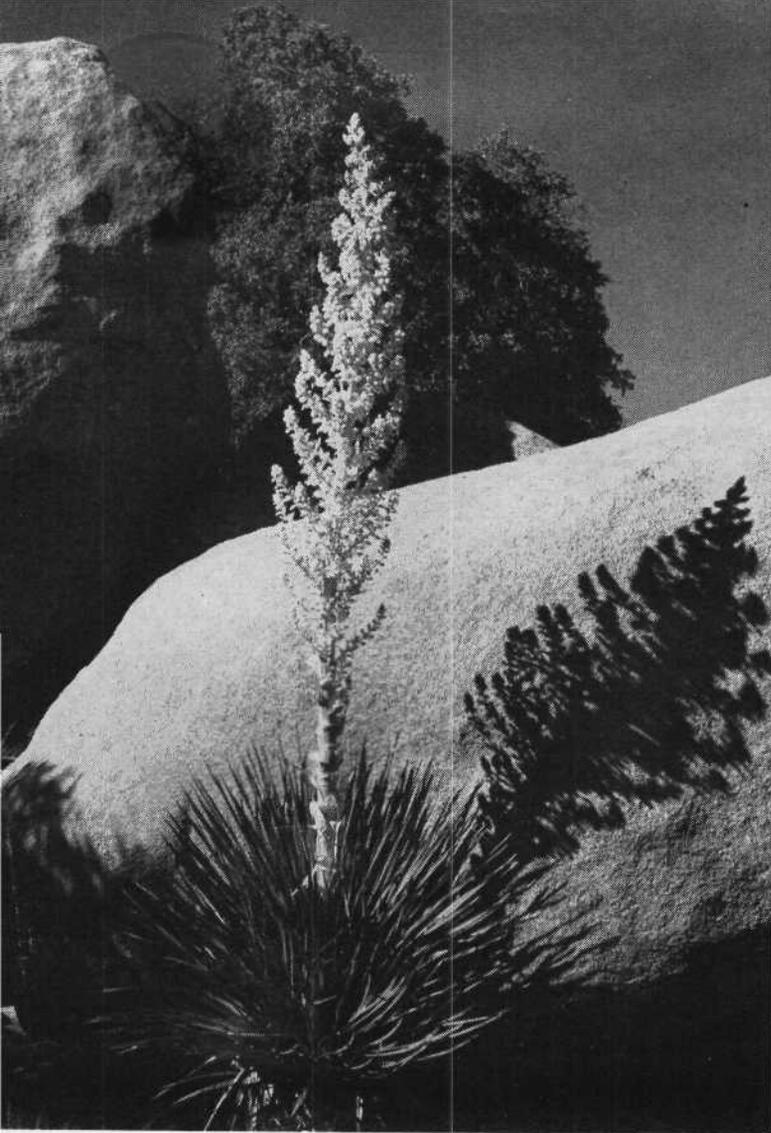


AUGUST, 1946

25 CENTS

Prize Winning Photos

One of the most thrilling of the outdoor sports on the desert is rock climbing, and in order to give Desert Magazine readers a glimpse of this form of adventure, the August photo prizes will be awarded for rock climbing pictures. Photos should show climbing action, techniques, or any phase of the sport.



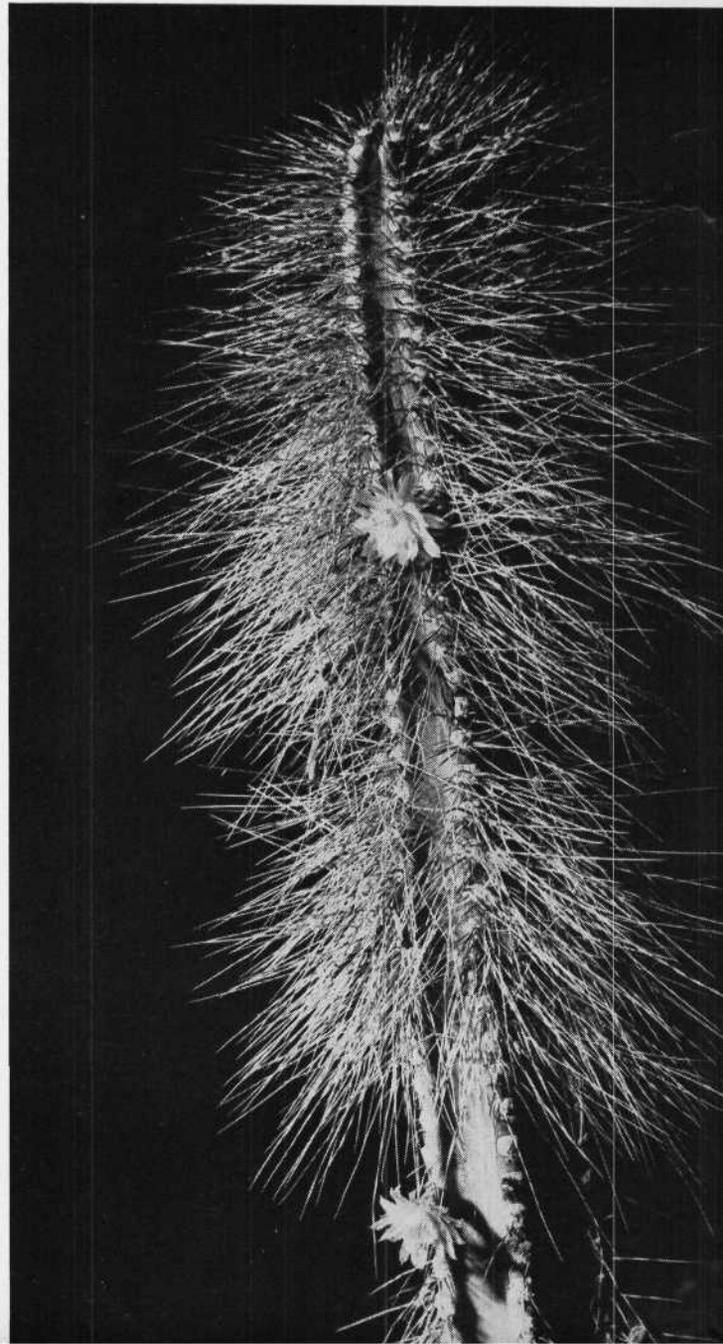
Nolina in Bloom

Winner of first prize in Desert Magazine's June "Desert in Blossom" contest is this photo of a Nolina in bloom in Joshua Tree national monument, by L. B. Dixon, Del Mar, California. Taken with a Leica, 50mm objective, Plus X film, developed in DK20. Exposure 1/60 f6.3 with Aero No. 2 filter, straight print on F2 Kodabromide.

Night Blooming Sinita

Hubert A. Lowman, Southgate, California, won second prize with his view of a Night-blooming Sinita, or Whisker cactus. Photo taken in Organ Pipe Cactus national monument, Arizona, with flash exposure.

Photos of merit were purchased for future use in Desert Magazine from the following contestants: Claire Meyer Proctor, Phoenix, Arizona; C. H. Lord, Los Angeles, and Hubert A. Lowman.



DESERT Close-Ups

• Next story by Randall Henderson will be about Ed. Williams of Blythe, California, who since 1912 has handled many tough problems for his neighbors in Palo Verde valley, from his million-dollar errand to Washington through the fight for an equitable division of irrigation water from the Colorado river.

• New name among DESERT'S writers is that of Ken Stott Jr., curator of mammals, Zoological Society of San Diego, whose initial story will be an account of night collecting of desert reptiles.

• In September, 1944, issue of DESERT, Hope Gilbert wrote about the remarkable Swiss-American who did pioneer archeological work in the New Mexican area later named in his honor—Bandelier national monument. Shortly, DESERT will present the story of the monument itself, as told by J. W. Hendron, of Fort Sumner, New Mexico, who for the past ten years has spent much time in research at the monument. He says, "I am prejudiced about Frijoles (name of canyon in the monument)—I know of no other place equally as interesting. Most visitors thoroughly enjoy themselves and will especially do so this season since Frijoles Canyon lodge opened about May 1."

DESERT CALENDAR

- Aug. 1-3—Salt Lake City horse show, Utah state fairgrounds.
- Aug. 2-4—American Legion 8th Annual Cowboys' reunion, Las Vegas, N. M.
- Aug. 3-4—Indian Wells Valley Stampede. Entrance one-quarter mile west of Naval Ordnance Test Station, near Inyokern, California.
- Aug. 3-25—Exhibit of silver jewelry from Taxco, Mexico, at Museum of Northern Arizona, Flagstaff. First museum exhibit of Spratling silver in the U. S.
- Aug. 4—Annual Fiesta and Corn Dance, Santo Domingo pueblo, N. M.
- Aug. 11—Smoki Dance, Prescott, Ariz.
- Aug. 15-17—Cache county fair and rodeo, Logan, Utah.
- Aug. 15-18—25th Annual Inter-Tribal Indian Ceremonial, Gallup, N. M.
- Aug. 17-18—American Legion "Return of Peace" festival, Reno, Nevada.
- Aug. 31-Sept. 2—Nevada state fair, Fallon, Nevada.
- Aug. 31-Sept. 22—"Arizona Photographers" exhibit, Museum of Northern Arizona, Flagstaff. Entries accepted until Aug. 21.

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

The leaves that flutter to the ground,
Brought low by raging storm,
Are useful still—they only change
Into another form.



Volume 9

AUGUST, 1946

Number 10

COVER	HOPI INDIAN BUTTERFLY DANCERS, Arizona. Photo by Andre de Dienes, Hollywood, California.	
PHOTOGRAPHY	Prize winners in June contest	2
CLOSE-UPS	Notes on Desert features and contributors	3
POETRY	Drought, and other poems	4
FIELD TRIP	Fossils While You Wait By JOHN HILTON	5
LETTERS	Comment from Desert readers	8
LEGEND	John D. Lee's Lost Gold Mine By CHARLES KELLY	9
HUMOR	Hard Rock Shorty of Death Valley	11
OASIS	We Camped at Cantu Palms By RANDALL HENDERSON	12
ART OF LIVING	Desert Refuge, by MARSHAL SOUTH	17
BOTANY	Old Man Groundsel By MARY BEAL	19
INDIANS	Eagle Hunter of the Hopi Prayer-Makers By DAMA LANGLEY	20
CONTEST	Rules for August photographic test	23
MINING	Current news briefs	24
NEWS	Here and There on the Desert	25
DESERT QUIZ	A test of your desert knowledge	28
HUMOR	Cartoon, by FRANK ADAMS	30
HOBBY	Gems and Minerals —Edited by ARTHUR L. EATON	31
LAPIDARY	Amateur Gem Cutter, by LELANDE QUICK	37
COMMENT	Just Between You and Me By the Editor	38
BOOKS	The Lost American, and other reviews	39

The Desert Magazine is published monthly by the Desert Press, Inc., 636 State Street, El Centro, California. Entered as second class matter October 11, 1937, at the post office at El Centro, California, under the Act of March 3, 1879. Title registered No. 358866 in U. S. Patent Office, and contents copyrighted 1946 by the Desert Publishing Company. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor. LUCILE HARRIS, Associate Editor.
BESS STACY, Business Manager. — WALTER E. KNAPP, Circulation Manager.

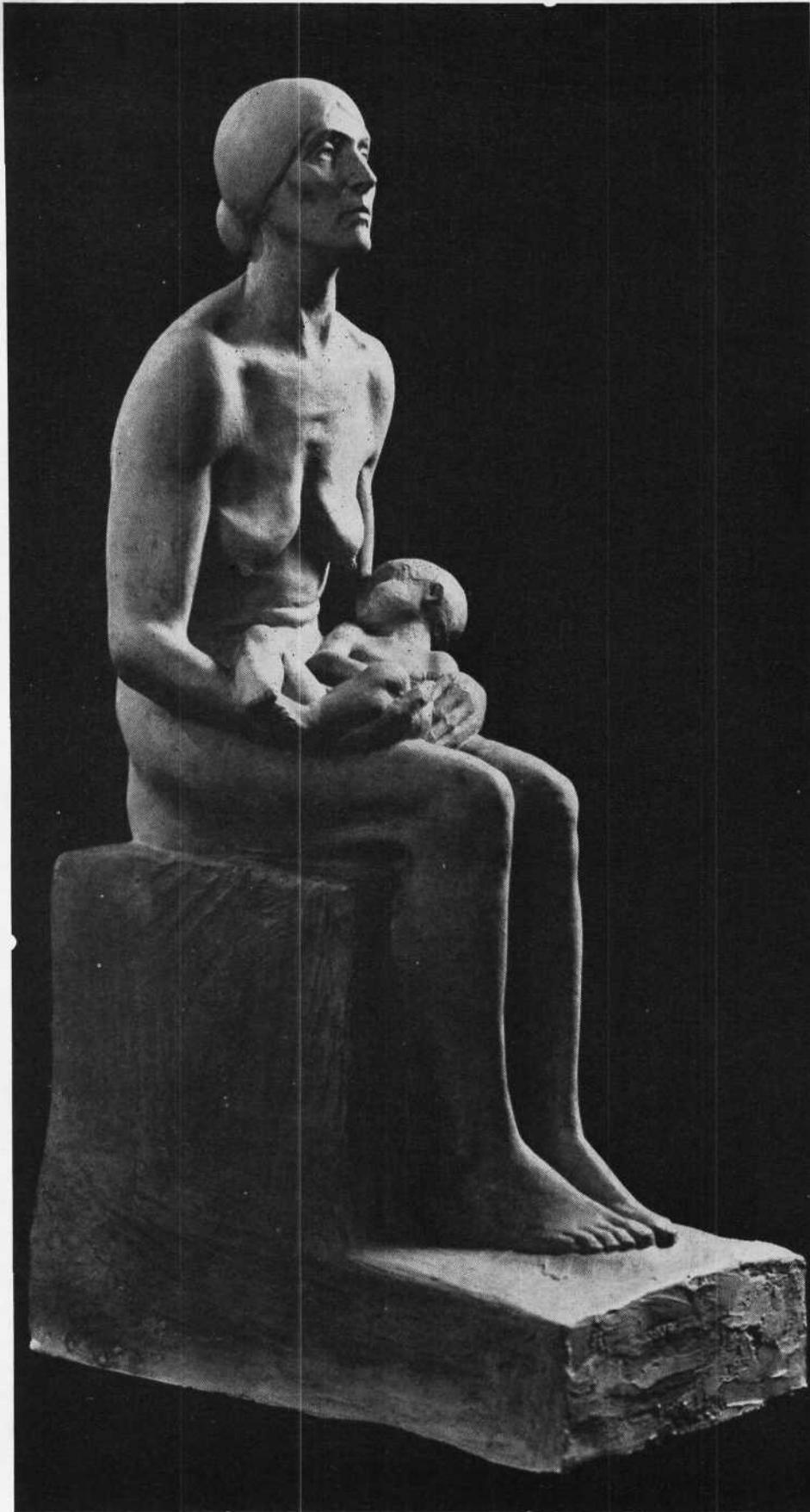
Unsolicited manuscripts and photographs submitted cannot be returned or acknowledged unless full return postage is enclosed. Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised. Subscribers should send notice of change of address by the first of the month preceding issue. If address is uncertain by that date, notify circulation department to hold copies.

SUBSCRIPTION RATES

One year \$3.00 Two years \$5.00
Canadian subscriptions 25c extra, foreign 50c extra.

Subscriptions to Army personnel outside U.S.A. must be mailed in conformity with P.O.D. Order No. 19687.

Address correspondence to Desert Magazine, 636 State St., El Centro, California.



Photographic reproduction of sculpture by Christian Petersen, Iowa State College, Ames, Iowa.

Drought

By J. C. CUNNINGHAM
Ames, Iowa

The brave child Hope
Lies starving on the mother's knees.
Her shrunken breasts have failed
When empty skies
Mocked back the cry for rain.

Both day and night
The cattle moan
For drink and parceled forks of hay.
High poised the ugly buzzards circle slow
To drop like plummets when some beast
Staggering, falls to rise no more.
The dried up corn breaks from its roots
And burning winds suck added heat
From pastures dry as parchment from a desert
tomb.

The Snake Priest calls his clans
And hour by hour
And day on day
Repeats his chants
And thinks by agony and dance
To draw from gods displeased
The blessing of the rain.

The Pale-face knows no chant,
No dance.
He cannot think that God
Would change his laws for one small place,
He cannot pray for rain:
He can but dumbly stare
While Hope lies dying
On the mother's knees.

Outside the withering wind unwearied blows.
A sheltering tree, the grandsire's pride, is
dead—
Others yet will die.

Another brazen sky
Stares at a new born day
But offers not one cloud to nourish Hope,
Starving—dying on the mother's knees.

EROSION

By S. ESTELLE GREATHEAD
San Jose, California

What magic chisel carved this mountain gorge,
Encircled by a granite wall,
Shadowing growths of tangled moss and vine,
And spicy pine trees, green and tall!

Wise men have told us that the Artist's hand
Was dipped into a crystal pool,
And drop by drop, it etched His great design,
With patience, and this simple tool.

O, for a vision of the Artist's plan,
And for a stern, unwearied will
To penetrate this stubborn *laissez faire*,
Life's destined purpose to fulfill!

DESERT

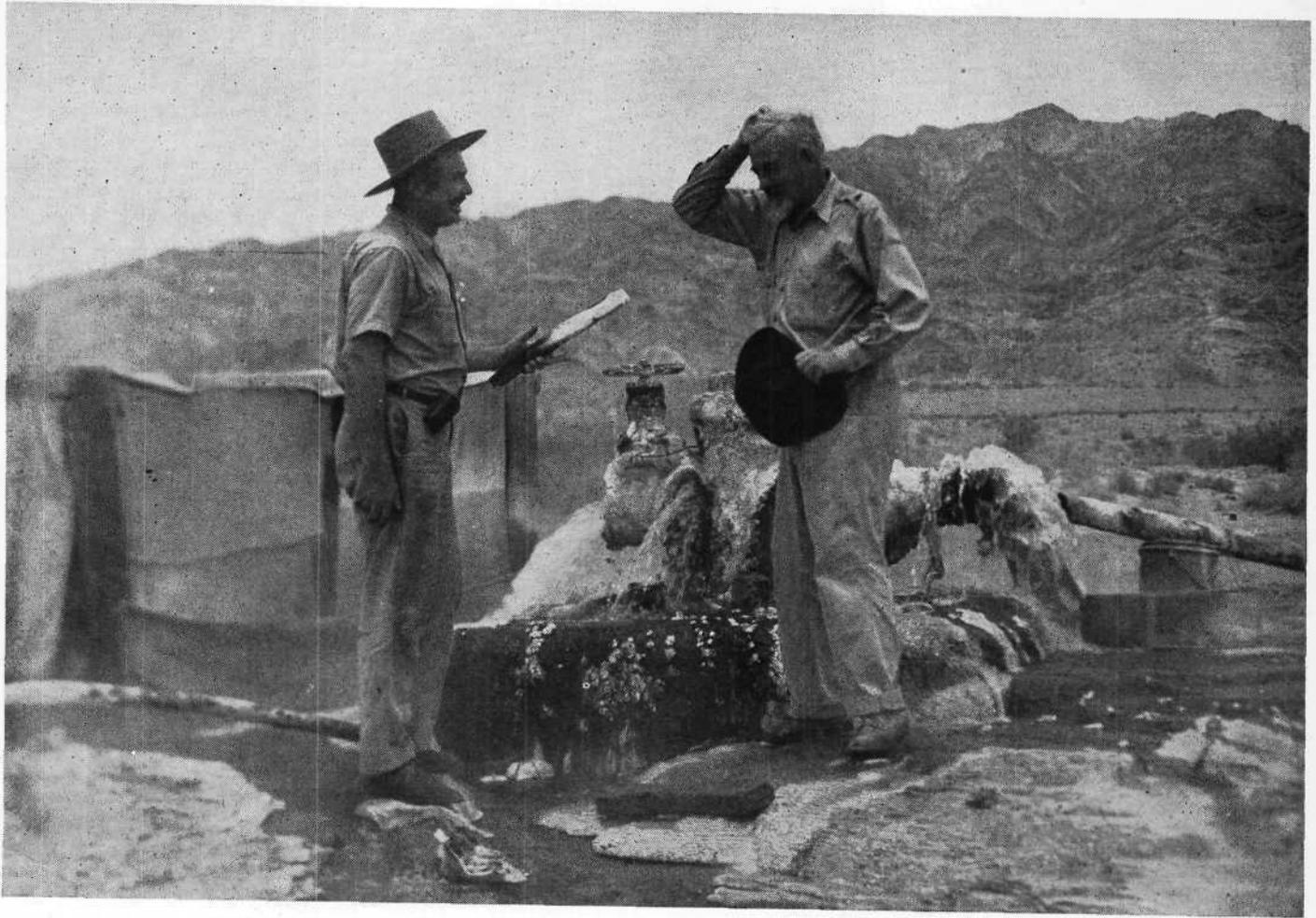
By GRACE B. HOLDER
State College, New Mexico

Gray clouds above the sandhills
And clouds above the town,
While in the air the dust is settling down.
No gentle breezes blowing, no longer shines the
sun,
From out the west a wind comes, the sandstorm
has begun.

The desert comes to life and tosses high its boast.
"You cannot conquer me, yon town is but a
ghost."

"I am the Land, Me, you have not over-
whelmed."

"Build on, but this shall ever be
The wind and sand unquelled."



This is the artesian well where the water turns everything to stone. John Hilton (left) shows Harry Oliver the "petrified" barrel stave.

Fossils While You Wait

Harry Oliver's reputation as the champion liar of the Colorado desert got a terrific setback when John Hilton took him out on the desert and showed him that his favorite tall tale might have been a true story. But you cannot beat a champion—as Harry proved when the battle of wits was over. Here's the story of a desert rat who has "never been licked by the truth," and of a well that creates fossils while you wait.

By JOHN HILTON
Photos by M. D. Bradshaw

SOME years ago Harry Oliver of the Southern California desert wrote a little book of fact and fiction called *Desert Rough Cuts*. One of the yarns in this highly imaginative volume was about Petrified Pete who owned a mine up on the rim of the desert near the timberline.

Pete had a pegleg, and the water in his mine was so highly mineralized he found his wooden leg was turning to stone. That gave him an idea. One of his neighbor's cabins recently had burned down, and Pete reasoned that if he could turn his own cabin to stone it would be fireproof. With the aid of some hollow logs he piped the

water from the mine down to the roof of the cabin, and let it trickle. Eventually he had a stone house.

It was a good yarn, and Harry was rather proud of it. He felt that it entitled him to a place in the desert's Hall of Champion Liars, along with Death Valley Scotty and Hard Rock Shorty and other notable prevaricators.

But when a tall tale actually turns out to be fact, and bounces back in the inventor's face as the truth—it sort of takes all the wind out of him. And that is the fix Harry Oliver was in recently. It happened this way:

Strange things happen on the desert, and one of the most amazing among the recent developments on the Colorado desert occurred in connection with the construction of the All-American canal to Coachella valley.

Early in 1939 the V. R. Dennis company of San Diego, drilled a well along the north side of Salton sea to get water with which to wash gravel for construction purposes. At a depth of a little over 300 feet they struck a high-pressure flow of very hot water. The water was too highly mineralized to be used for washing purposes, and the drillers finally abandoned it.

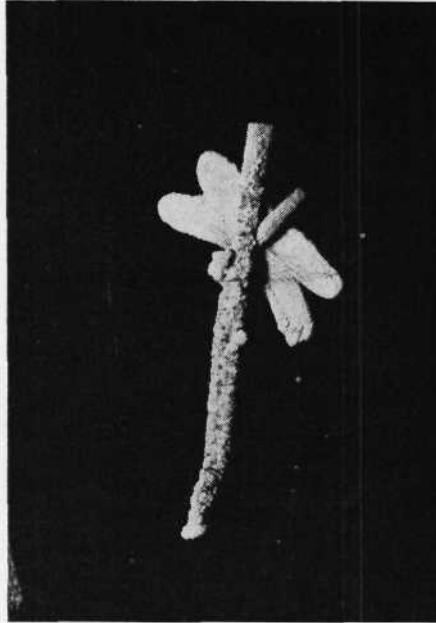
I heard about this well at the time it was drilled, but it was not until a year ago that I had an opportunity to visit the place. I found there one of the most interesting phenomena this desert has produced since barnacles suddenly appeared in Salton sea four years ago (*Desert Magazine*, March, '45).

The location of the artesian well is marked by a small mountain of gravel left there by the canal contractors. As I ap-

proached the place I saw steam rising from among the smoke trees and mesquite. I pulled off the road and parked my car near a rusty 10-inch casing protruding from the ground and spouting hot water like a small geyser. Boards and bottles and cans left in the path of the flowing stream were covered with a coral-like deposit ranging in color from pale pink and yellow to a very dark maroon. The deposits were not salt, as I had expected to find, but onyx. More specifically, they were aragonite. Here was a well flowing aragonite in solution.

Further exploration of the area revealed that the water flowing across the desert below the well had formed colorful semi-circular pools similar to those in Yellowstone park. As the water became cool enough to support microscopic life, algae had begun to form in shades of bluish green and soft pink, which, added to the coloring of the stone, made a gorgeous picture. I found it hard to determine in some instances which was mineral and which was vegetable color. This was especially true in the bottoms of the crystal pools. Actually, on close examination, some of the delicate laces and corals proved to be a combination of crystal formation and plant growth.

Walking back again toward the well, admiring the color variations that occurred



The dragonfly that stayed too long in the spray of the mineralized water.

in different temperatures, I saw something that looked like a crystallized dragonfly. It was near the surface of the water and seemed to be attached to a twig covered with pale orange aragonite. I stooped and detached the twig. The water was so hot it nearly scalded my fingers, but I felt re-

warded for the effort when I saw that it was exactly that—a dragonfly covered entirely with tiny sparkling crystals of stone. Although the entire surface of the insect was coated with crystals, Nature had done the job so skillfully that the details of the pretty insect had been preserved, even to the veins in the wings and the hump on the body. It was one of the most exquisite mineral specimens I ever have found.

Once in lime tufa in Ventura county I had found a fossil dragonfly among the algae, patterns and leaf casts of an ancient spring. I knew how Nature formed these things, but here was the process going on before my eyes. Fossils while you wait, if you please.

Since then I have found several more dragonflies and other insects which had been trapped by the encrusting waters of the aragonite well. None of them had the perfection, however, of that first discovery.

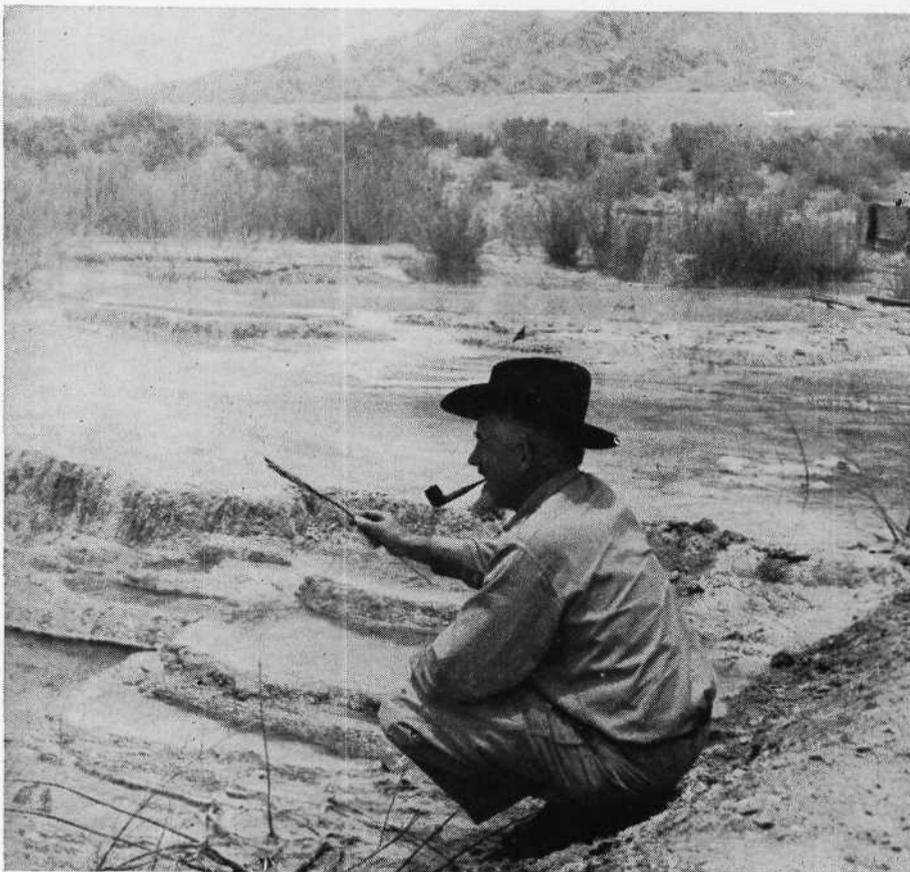
On a later trip with Ted Hutchinson, who also is a rock and cactus collector, he found a bit of aragonite on which was perched a perfect mosquito. He gave it to me for my growing collection of contemporary fossils. Later, Vivian Mills, a neighbor in Coachella valley, pried up a piece of aragonite which she insisted looked like a small bird. Her husband Ivan, who shares her enthusiasm for desert stones, chided her about her imagination. But when she finally got the specimen detached where it could be examined, it proved to be the cast of a small virden which evidently had met death through scalding and then had become coated with stone. Next time I was at the well I saw a virden perched on a wisp of tamarisk, and wondered if this was the mate of the little stone bird that now rests in my collection, for Vivian had given me the fossil.

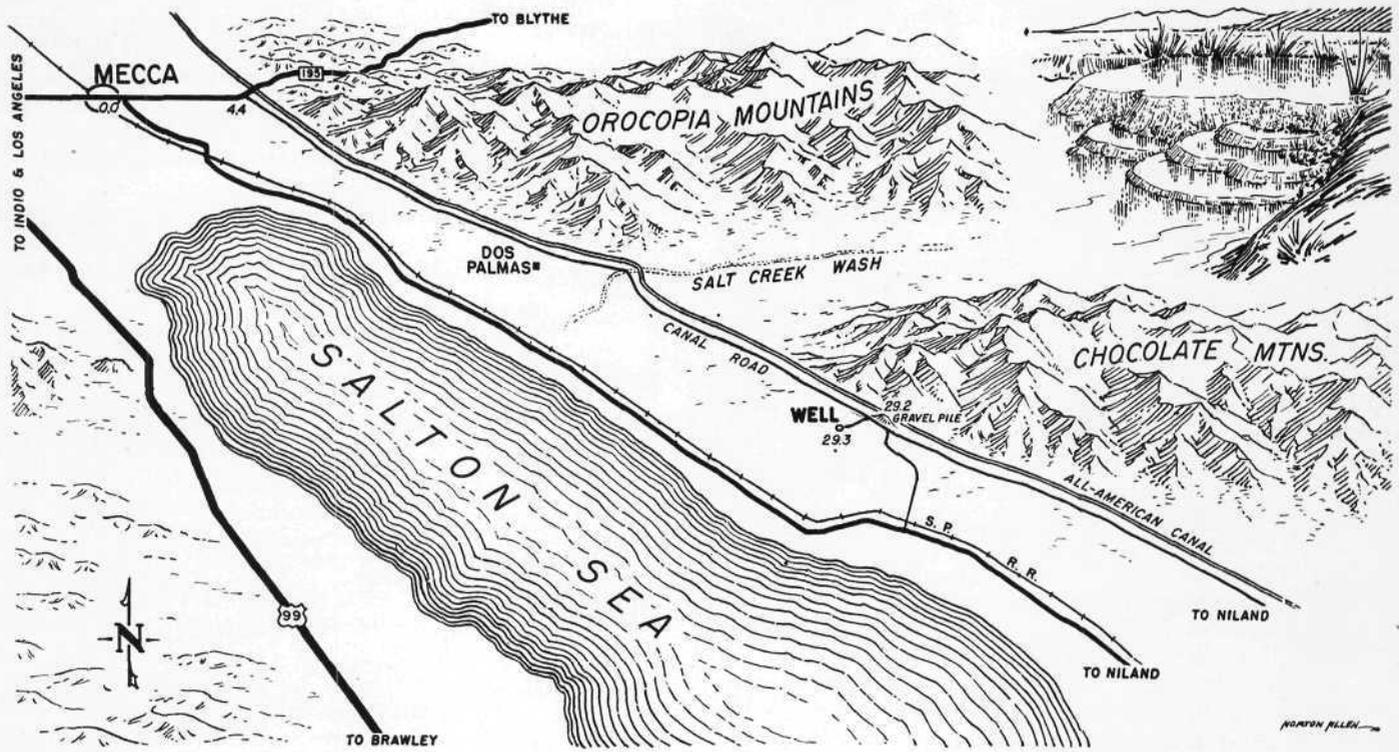
On later trips to the well my companions deposited objects in the water to be covered with crystals. When we would return weeks later, sometimes they would be there, and at other times we were disappointed. But perhaps other souvenir hunters got what we lost.

Last winter Commander Scott, whose radio programs are widely known to Pacific coast audiences, went with me to visit the well. He delights in the discovery of what he calls "unreal realities." His loot for the day consisted of a petrified 2x4, four twigs covered by beautiful ocher-colored aragonite crystals and a prize specimen—a well crystallized spider. He told about it on a radio program later.

Actually, the objects caught in the waters of the aragonite well are not petrified. In silica petrification the organic cells actually are replaced by mineral cells. Here the process is much faster and merely takes the form of mineralized coating. In time, however, if the organic material decom-

Harry Oliver considers the possibilities of using the mineral water to build a stone cabin for Petrified Pete.





posed, or was porous enough to permit the infiltration of mineral in solution, the object would be replaced by a finer grained and harder form of limestone. Perfect examples of this process can be found among ancient fossils. Some of the finest insect fossils and leaf and flower casts have been found on the site of ancient hot springs where the organic cells were entirely replaced with minerals.

A few weeks ago Harry Oliver published the first number of a new quarterly which he is issuing under the title, *Desert Scrap Book*. One of the characters in Harry's latest publication is his old friend Petrified Pete. Reading about Pete's escapades, I got an idea. I would take Harry Oliver out to the aragonite well and show him that his hero was not as fictitious as he had imagined. We took M. D. Bradshaw along to get some pictures of the well.

We drove out from Mecca on the old Blythe road through Box canyon. At the point where the new All-American canal crosses the pavement we turned right along the good gravel road which the contractors have constructed parallel to the big ditch.

There is some water in the canal now, for seasoning purposes, and when he stopped on the bank, Harry remarked: "Great thing, this canal. First thing you know, sportsmen will be coming out here to fish in the sagebrush." Just then a fish broke the surface of the water, and I told him it was true already. Recently there have been arrests for fishing in the canal without a license—and I have eaten some of the canal fish, caught with a license.

Then I told Harry about the anglers who had caught catfish on the bank of the canal and then cooked them in the steaming water of the aragonite well a few hundred feet away.

"I'm getting disgusted with myself," Harry mumbled. "What chance does a professional liar have in this kind of a country."

We traveled on past historic Dos Palmas spring, recalling the atrocious road that once came this way, and were grateful to the contractors who had built the hard road on which we were riding.

I mentioned the fish which once lived in the spring near the palms at Dos Palmas. There was a twinkle in Harry's eye, and I knew he was about to tell me a good fish story. But I beat him to it. I told him about the scientists who had been out on the desert looking for certain species of "blind" fish in this region, and other species which suddenly showed up in desert wells from no source that ever could be traced. As we drove on I could see Harry was in a sulky mood.

Finally we arrived at the well. The smoke trees were covered with vivid blue blossoms. Harry brightened up and began to poke around. He found a "petrified" barrel stave and other odds and ends. Brad got out his camera and started snapping pictures. It was a field day for all of us. I had to answer the usual questions. The well was 305 feet deep, and it flows about a hundred miners' inches of water at a temperature of 170 degrees at the surface. The pressure is terrific.

Harry disappeared downstream, and a few minutes later shouted to us to come

and see what he had found. There in a pool of cooler water were thousands of migratory minnows just like the ones that once lived in Dos Palmas spring, and which are said to come from the wells in Coachella valley.

"I guess you were right about those migratory fish that come from nowhere," he conceded grudgingly. "It is certain these fish did not come from that well, even if they had asbestos suits."

Then the artist in Harry came to the surface. "What I could do with a place like this," he sighed. "First I'd build a replica of Petrified Pete's cabin. I'd put a hose on the well and spray the place for a few months and have the darndest showplace on the American desert. Why, I'd have a petrified forest and make decorative fountains. There's no end to the ideas I could use here, and the world would beat a path to my door."

Then the far away look disappeared and Harry gave me that sly smile which always precedes one of his championship yarns.

"Ha," he boomed. "You thought you had me stopped when you brought me out to this well. But I've never yet been licked by the truth. I'll have Petrified Pete spring a leak in his roof. The mineral water will drip down into a barrel of dill pickles which are one of Pete's favorite relishes. The pickles will turn to jade, and Pete will sell 'em all to China and get rich.

"Johnny, if you ever find a well or a spring that will duplicate that story, I'll stick to the truth as long as I live."

He turned and strode toward the station wagon with all his old-time jauntiness. He had me licked, and he knew it.

LETTERS...

Rattlesnake Bill's Sombrero . . .

Jacumba, California

Dear Editor:

About 22 years ago we were camped at the old Carrizo stage station on the Butterfield route in San Diego county, California. There were four of us, Ben, Dave, Bill and myself and we were searching for old Indian camps.

Ben's job was to keep the camp in wood. Dave was to keep the canteens filled. Bill was to supply fresh meat, and I was camp cook. One evening I informed Bill that we were out of meat. He said there were no more rabbits to be found. About that time we moved to Mountain Palm springs, and after a few meatless days we told Bill we would eat anything he would kill.

The "first thing" proved to be a big rattlesnake. But the boys were game. I cooked it good and brown, and they cleaned the platter. Bill took the rattles and put them on his hat—and they have been there ever since, along with many more which have been added.

And that is the way Rattlesnake Bill Davis of San Diego got his name—and that was the start of the famous rattlesnake hat which is well known all over the Southwest.

HAPPY SHARP

On the Origin of Monuments . . .

Chicago, Illinois

Dear Mr. Henderson:

As a faithful reader of The Desert Magazine for several years (and especially of Desert Quiz), I am taking the liberty of questioning the complete accuracy of the answer to question No. 2 of the June Quiz.

It is true that most national monuments are established under presidential proclamation, under authority of the "Antiquities Act" of June 8, 1906. Occasionally, however, as in the case of Badlands national monument, George Washington Birthplace national monument, and one or two other monuments, are established by act of Congress.

ISABELLE F. STORY

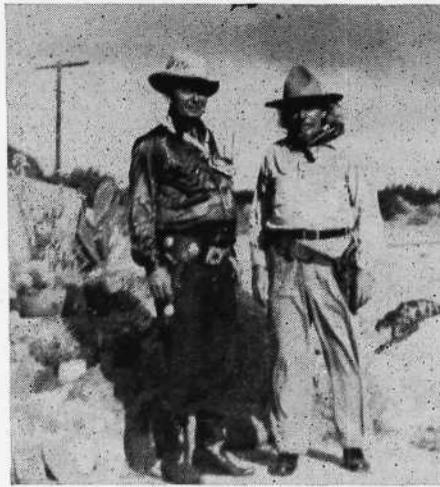
On Foot Through Navajoland . . .

Chicago, Illinois

Dear Sir:

For the information of those who would like to hike through the desert country, but are deterred by thoughts of heat, lack of water, etc., let me describe a trip my brother and I made last October.

We started on foot from Shiprock, New Mexico, and headed west. Before reaching the trading post at Carrizo we detoured north seven miles to the "Four Corners."



Bill Davis and friend. Bill is wearing the famous rattlesnake hat. Friend is Happy Sharp.

Then from Carrizo we walked south to Toh Tacan and thence to Rock Point. From this point to Round Rock and Many Farms the scenery is magnificent. There were rock formations of gigantic size and brilliant hues along much of the way.

We continued south from Many Farms to Chinle and Ganado, then along a better road west to Keams canyon and the Hopi mesa pueblos of Oraibi and Hotevilla and on to Tuba City.

The distance covered was 350 miles. At no time were we more than 50 miles from a trading post. Generally they are 20 to 25 miles apart, and can supply all the needs of such a trip. The days were warm and pleasant, but the nights were cold, twice dropping below 20 degrees. Firewood was scarce in places, and we carried water from post to post.

My brother and I are just average "city folks," not hardy explorers. We feel that for anyone who can walk from 20 to 25 miles a day with a pack of about 15 pounds this would be a pleasant trip. We met many Navajo, some of whom could speak no English, and they were never antagonistic.

MELVIN A. NELSON

First Aid on the Desert . . .

Tujunga, California

Gentlemen:

Noticing your article about the Centipede and other desert insects I never thought much about it until I read the letter in your March issue by W. J. Johnston.

Will say that I lived many years in southern New Mexico and know a great deal about all those insects and have killed many of them, but was never bothered with any of them but once.

When I heard my little girl crying I

went out and brought her to the house. Her arm was swollen and red and on this red arm were some white marks. I was told that a centipede had walked on her arm and that was the marks. Not being where I could call a doctor to treat this kind of a poison I merely made a plaster pad of wet soda and bound it on her arm and rocked her to sleep. When she awakened it was all gone. I am telling this thinking some one who could not get anything else might try it.

ANNIE K. WILLIAMS

Hair Ropes and Rattlesnakes . . .

Death Valley, California

Dear Henderson:

Your comment about voodoo gives me an idea, so hold yourself for I am going to hex you.

Your statement places you in the same category with Woodson and his "Mark of the Centipede" (January '46) and Marshal South with his Indian pots that "have souls" (February '46). It would be a good idea for you bozos to change your brand of liquid refreshments or have your heads examined.

In all these instances you are all wet. There is a logical reason why a snake will not willingly cross a snake rope—and here it is:

The snake rope is made of coarse hair, hard twisted and close clipped, and is very bristly or spiny, about 1½ inches in diameter. Those of us who have given the matter close attention know that a snake literally feels its way with its tongue and will not cross any obstacle without first flicking its tongue against the object. When its tongue encounters the bristly rope the snake will stop and veer off and go around the rope, and will not willingly cross it.

I have tried this out by placing the rope around a rattler like a pen, then withdrawing a few steps, and have seen the snake crawl round and round the pen, flicking its tongue against the rope, but never crossing it.

Back in '99 we made such a test when there was a young fellow with us named Dick Wick Hall. He was very much interested and took notes and several pictures of the snake inside the rope pen. One of the snakes was left inside the pen for two days and it died there. The snake was a black diamondback about four feet long, and the test was made on the old Tewksberry ranch in Pleasant valley, Arizona.

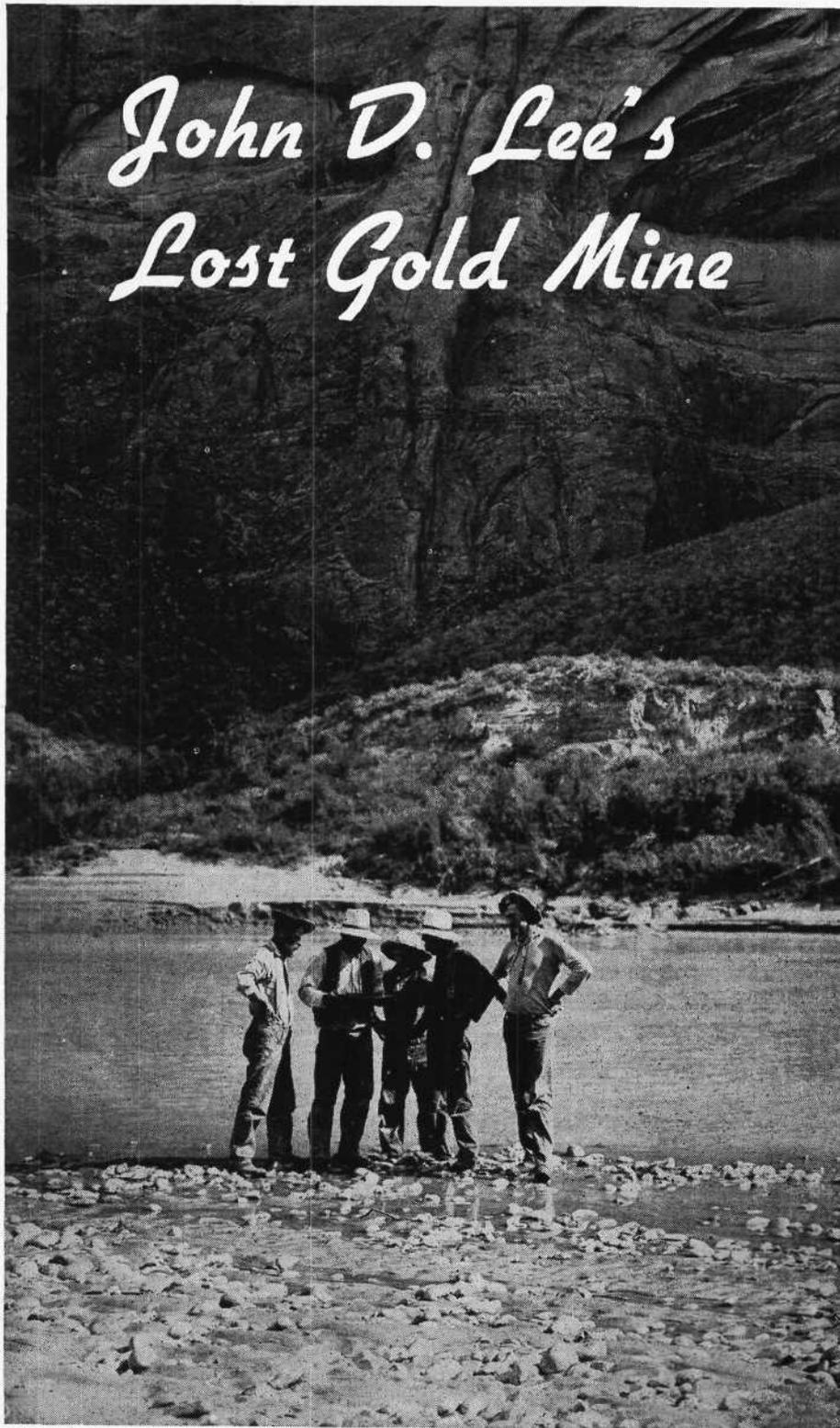
And now, Friend Randall, you know the reason why hundreds of men who lived in the open and slept on the ground used snake ropes. While I often find articles in Desert with which I do not agree, some of which really burn me up, I have also found so many fine articles that I think will interest some friend or acquaintance that I usually pass it on.

BOB WIMMER

Following the infamous Mountain Meadows Massacre for which he was later tried and executed, John D. Lee spent many years hiding out in the canyons along the Colorado river. Much of his time was spent prospecting, and legend persists that he made a rich gold strike. Here, Charles Kelly has pieced together the meager bits of evidence supporting the gold strike story.

By CHARLES KELLY

John D. Lee's Lost Gold Mine



This old photograph is from the C. C. Pierce collection—showing prospectors panning for gold along the Colorado near Lee's ferry in the 'nineties.

WHEN Major John Wesley Powell arrived at Crossing of the Fathers, October 6, 1871, on his second expedition down the Colorado river, he was met by three prospectors who eagerly inquired if the exploring party had found any showings of gold in exposed rock formations in the canyon above. When Powell told them he had seen no mineral they were disappointed.

Ever since then prospectors have continued to search for gold along the river, particularly in Grand Canyon, where rock formations are exposed from the granite upward. Theoretically this deep erosion should have revealed many rich mineral veins.

Powell makes no reference to any mineral outcroppings seen by him in the canyons. His interest was purely geological. But Robert B. Stanton, in 1889 and 1890 found placer gold in Glen canyon, where he later installed a big dredge. He also staked several claims in Grand Canyon near the volcanic formation known as Vulcan's Throne, where he found numerous showings of gold and silver.

In a fictional story entitled "Kawich's Gold Mine," Josiah F. Gibbs describes a rich find of placer gold near Vulcan's Throne. The location was revealed to a certain white man visiting Lee's Ferry, by Kawich, a Navajo Indian, and a fortune in gold dust was taken out about 1885. Before his death Gibbs told me this part of the story was true and that he personally knew the man who took out the gold.

One of the first men to explore the Grand Canyon systematically for mineral deposits was John D. Lee, who located at the mouth of Pariah creek, just above Marble canyon on the Colorado, in 1872. Lee, one of the participants in the infamous Mountain Meadows massacre of 1857, found that isolated spot an ideal hideout, and after establishing Lee's Ferry, assisted many of his companions in the massacre to cross the river and lose themselves in the wilds of northern Arizona.

Even before locating at the ferry Lee seems to have done some prospecting in the canyon. According to persistent rumor, he was the first white man ever to visit the Havasupai Indians. Taken captive by them he is said to have lived in Havasu canyon for two years, during which time he discovered several mineral deposits and built a crude forge in which to test the ore. This is believed to have been in 1859-1861, when he considered it still unsafe to visit his wives and families. Little is known of his movements between 1859 and 1872.

After moving to the ferry Lee spent most of the winter months prospecting, working his way down into Grand Canyon at various places over what are now well known trails. A few years ago I visited Lee's Ferry with Robert B. Hildebrand, who as a boy of 15 lived with Lee during



*Lee's ferry, looking downstream from the old ferry house toward the mouth of Paria river.
Photo by Hoffman Birney.*

part of 1875 and 1876. Lee took young Hildebrand along on several prospecting expeditions, mostly in northern Arizona. He always believed Lee had found a rich mine somewhere in Grand Canyon, but never learned its location.

As might be supposed, John D. Lee was a peculiar character. Although he confessed to participating in the Mountain Meadows massacre, he is said by all who knew him to have been a kind hearted man. He kept a journal in which he made

daily entries of all his activities, yet he told his 19 wives almost nothing. Most of his writings have been destroyed or lost and I have been able to find but one reference to any mine he may have discovered. This is in a letter written to one of his daughters, Amarah, while he was imprisoned in Salt Lake City, about 14 months before his execution, while he still had hopes of being freed. In this he said:

"I have just received a letter from Emma (one of his wives) and one from Judge

Spicer asking my permission to allow him horses to prospect with . . . and to tell him where those ledges was or is from which I brought in some . . . I wrote back to them saying I did not want anything to do with Spicer's fortune hunting; that I wanted Ralph and John to cross the river and go to work at my place, the Mow Eabba, lest someone would jump the claim and cause us trouble . . ."

This shows that even before his death a hunt was started for the supposed Lee

Original John D. Lee cabin. The author, right, with Robert B. Hildebrand who as a boy spent a year with Lee at his ferry on the Colorado river.

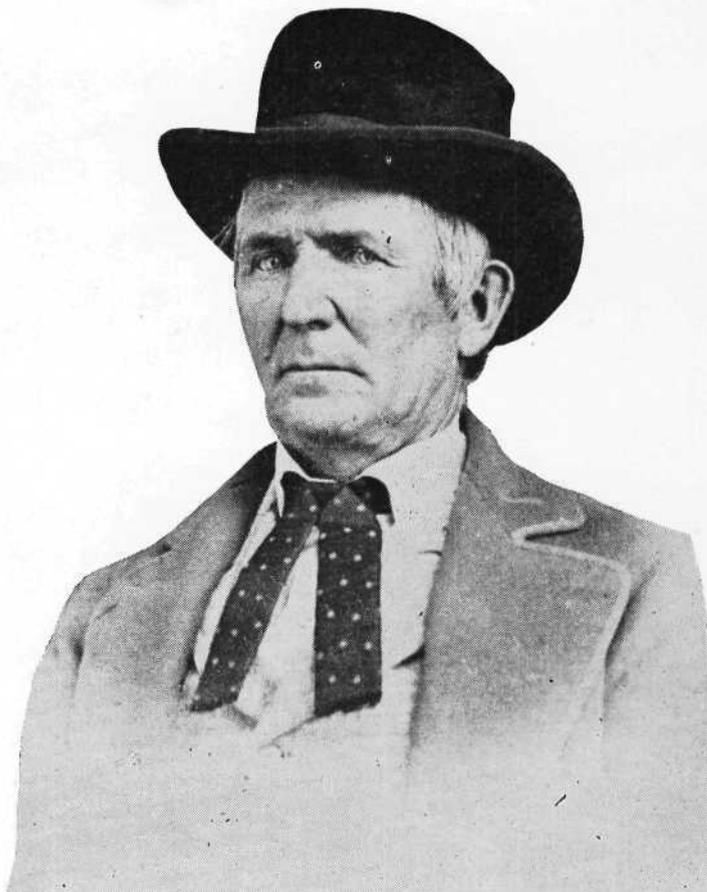


mine, of which Judge Spicer apparently had some reports. But no one, not even Emma Lee, knew its location, and her husband refused to reveal it. Spicer, believing Lee would be convicted, was trying to learn the mine's location through Emma, but Lee had good reason to suspect treachery. The claim at "Mow Eabba" refers to his farm at Moenavi and not to a mineral deposit.

Following his second trial John D. Lee was executed at Mountain Meadows in 1877. Some rich specimens in his collection at the ferry, together with many stories already in circulation, started an immediate hunt for the Lee mine, the exact location of which Lee had never revealed, even when faced with certain death. The first search, according to George Wharton James, was conducted by a man named Brown, who claimed certain knowledge of seven cans of gold dust buried near the mouth of Little Colorado river. This "Brown" was Isaac C. Haight, who traveled under that name to hide his identity as leader of the Mountain Meadows massacre. He had been in hiding with Lee, had crossed at the ferry many times, and was in a good position to know about Lee's prospecting activities. Hiring Sam Bass as a guide, he tried to find the location, but ran into difficulties and had to turn back. Later he and another man succeeded in reaching the spot, but after much searching found neither the buried gold nor any trace of mineral.

After the execution of her husband, Emma Lee moved to Holbrook, Arizona, and married Franklin French, a miner. Firmly believing that Lee had found something very rich, she told French what little she knew of the "lost Lee mine." Relying on that information French made many trips into Grand Canyon in search of "Lee's ledge." During this search he helped build the French-Tanner trail which goes down to the Colorado near the mouth of Little Colorado river, where "Brown" had searched for the seven cans of gold. He found some mineralized ledges but no valuable mine ever has been developed. No doubt Lee had visited the place on some of his many expeditions, but it is unlikely he would have revealed the exact location of any buried treasure.

Having known Josiah F. Gibbs for many years, I believe his story of the placer gold found in a narrow side gulch just above Vulcan's Throne. With a lava dam thrown across the Colorado, through which the water slowly ground a new channel, conditions were ideal for the collection of rich pockets. In the vicinity are also many ledges containing traces of gold and silver, on some of which Stanton made a filing. These have been worked from time to time but because of transportation difficulties never have proved profitable.



John D. Lee. He was executed in 1877.

If there ever was a "lost John D. Lee mine" I think it must have been in that vicinity. Perhaps some day another one of Lee's

journals will turn up and give us the secret which he refused to reveal even to his wife Emma.

Sez

Hard Rock Shorty of Death Valley . . .



"Fishin' in Death Valley?" Hard Rock Shorty repeated the tourist's question. Then he pulled at his corn-cob pipe and settled back on the bench in front of Inferno store as his memory traveled back over the 40 years he had lived in the Valley.

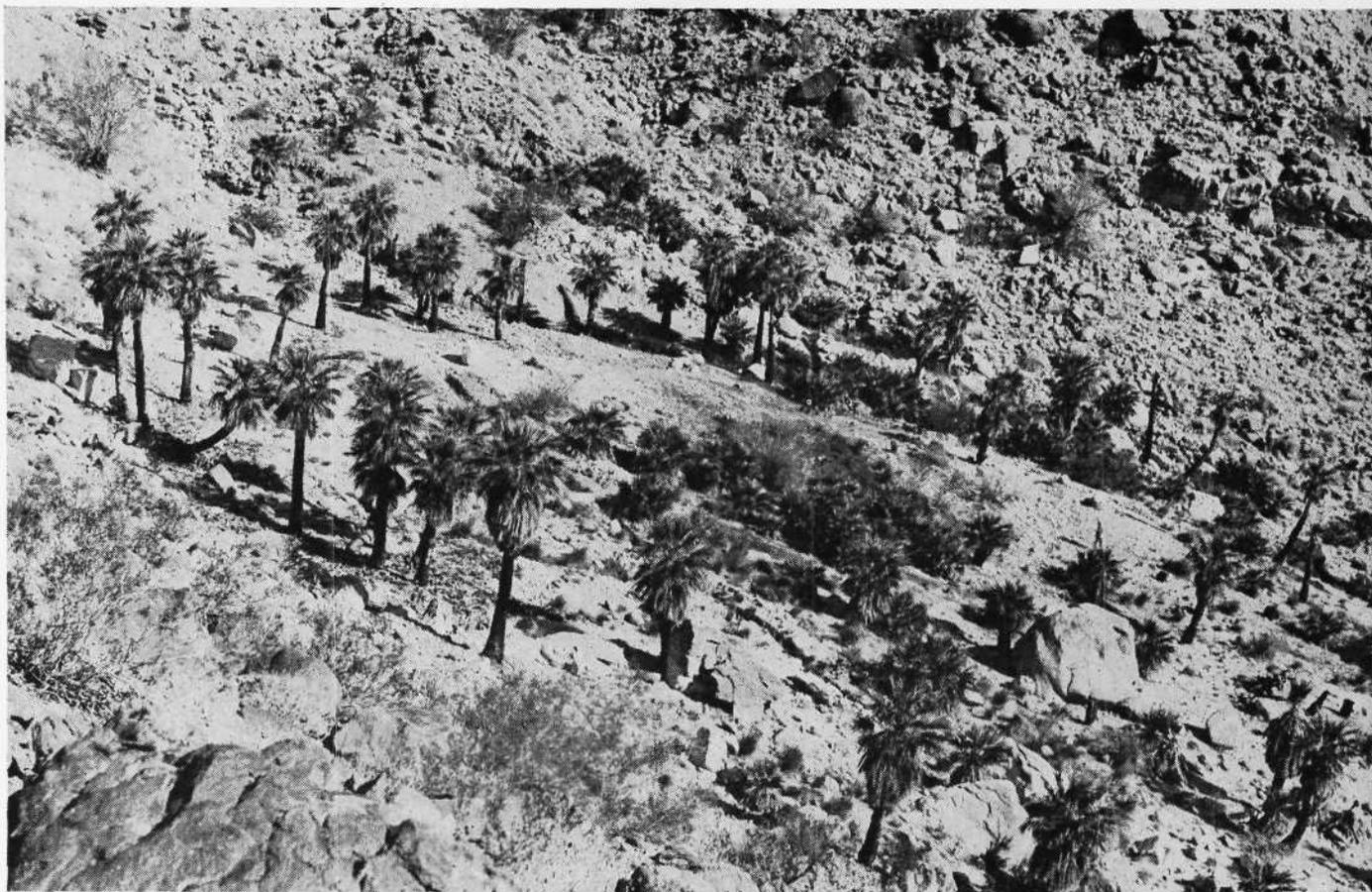
"Yep!" he said, finally. "But that wuz a long time ago. We had good fishin' back in 'twenty-seven. That wuz the year we had the big cloud-burst up in the Panamints. Water come down outta the hills and filled that ol' lake bed over in Lost Mule valley plumb full.

"Dunno where the fish come

from, but for a long time the pond was full o' them. Ketchin' finally got so good Ol' Pisgah Bill put up a sign in front o' his shack, 'FISHIN TACKEL FER RENT.'

"Bill did purty good fer a couple o' months. Then business dropped off an' along late in August Bill decided t' go over an' ketch some sea food fer hisself.

"Bill's seein' wuzn't very good, an' he sat on a rock over there fer three days afore he discovered the lake had dried up an' he wuz fishin' in a mirage. But he had a little luck, at that. Caught three lizards an' a sidewinder!"



Looking down on Cantu palms from above, it is discovered that one of the palm groups grows in a perfect circle, following an ancient watercourse.

We Camped at Cantu Palms

Except for the ghosts of the Indians, the Mexican wood-cutters, and the gold hunters who once camped here, the oasis at Cantu palms on the Baja California desert is now deserted. But the evidence of its former occupants still remains. Here is the story of a party of American explorers who visited this historic old waterhole and discovered, among other things, that even an army jeep has its limitations.

By RANDALL HENDERSON

IT WAS near dusk when we rolled our big-tired jalopy to a stop in a sandy wash on the bajada a quarter of a mile below Cantu palms. With Arles Adams at the wheel and Maclovio Vasquez as the other passenger we had been all day reaching this sheltered oasis at the foot of the Sierra Juarez in Lower California.

We had not intended to go to Cantu palms. We had left Mexicali on the border early on a Saturday morning in April with Palomar (sometimes called Bouquet) canyon as our destination. Many years ago, exploring the palm canyons which gash the desert slope of the Juarez range in Baja California in a sturdy pickup, my companions and I had followed a sandy arroyo back into the mountains a distance of 12 miles, and discovered a beautiful oasis where native Washingtonias extend along the boulder-strewn banks of a clear moun-

tain stream for miles. Later I learned this canyon was called Palomar, and for years I have wanted to go back there and get better acquainted with the Palomar oasis. But the war came and it was not until this year that Arles Adams and I arranged the return trip.

Located 75 miles south of the California border, this canyon is situated in a wild and all-but-impassable desert region. Two properly equipped cars are better than one for an expedition so far from supplies or habitation, and we invited Luke Fisher of the U. S. Border Patrol to join the party. Luke is one of the few veterans who have been lucky enough to acquire a jeep from army surplus, and when we told him about this little known canyon in the desert wilderness he was eager to take his jeep on the trip.

Some day I will tell readers of Desert

Magazine more about Palomar oasis. But not now—for we did not reach there. It wasn't the fault of the jeep, nor of Arles' V-8 jalopy. We missed Palomar because we couldn't find the right road.

Since my last trip there 11 years ago, Laguna Salada, that great inland playa which lies between the Sierra Juarez and the Sierra Cocopah in Lower California, had filled with overflow water from the Colorado river, and then dried up again. The old route to Palomar was across the dry lake bed. But now the road had disappeared. After spending nearly the whole day tracking and back-tracking over the hard smooth floor of the dry lake, we gave up the search for a route through the fringe of sand dunes that would take us out of the basin and up across the bajada to the south where Palomar was located.

Finally, late in the afternoon we drove

to Demarra well. Manuel Demarra dug a waterhole on the edge of the playa 44 years ago, and has eked out a meager subsistence with a little herd of cattle. It isn't much of a range—only a scant growth of galleta grass and mesquite beans—but it was enough for Manuel and his cattle.

He laughed when we told him where we were going and of our all-day search for the old road through the dunes. In his own language he told us how to find the road. "But it is *no bueno*," he said. "You will lose it again. No one has passed over the road for many years. Big storms come. It is washed out in many places. Only a burro could go there now."

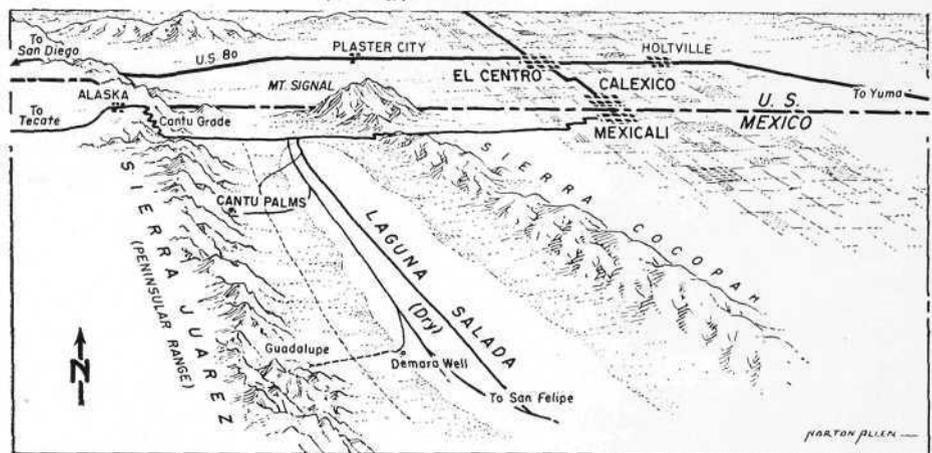
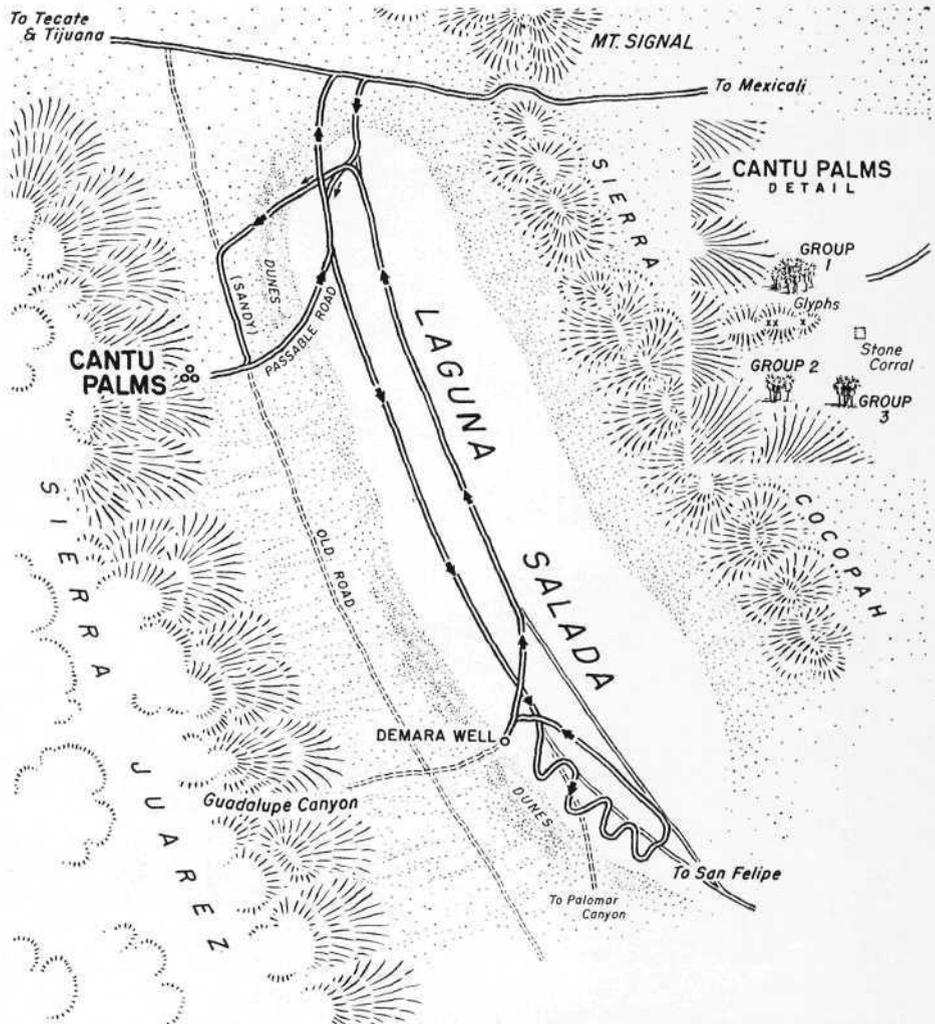
In the meantime we had lost the jeep. Laguna Salada is a huge basin, and earlier in the day we had divided forces to extend our search over a wider area. And now, we had not seen the jeep for hours. But we were sure it would come along in due time, so we gave up Palomar for the present and selected a new goal. We would go to Cantu oasis for the night. There was sweet water and abundant wood at Cantu. I had not been there for years, but I was sure we could reach the right place.

So we gave Manuel a message for the jeep party, and hurried away so we could make camp at Cantu before dark. There are many wood-cutters' trails across the old lake bed, and to make sure our companions would be able to follow us, we left notes along the roadside at all junction points.

The Cantu group is the only palm oasis visible from the floor of Laguna Salada. It nestles in two small coves at the base of the Juarez range. These palms were given their name in the early years of the present century when Esteban Cantu was governor of the Northern District of Lower California. Old-timers will recall the period when, taking advantage of revolutionary conditions in Mexico, Governor Cantu virtually established an independency of his Baja California territory, and declined to forward tax and import revenues to the central government in Mexico City.

Finally, however, when stable government was established on the mainland, General Abelardo Rodriguez was sent at the head of an army to repossess the territory in behalf of the Republic of Mexico. As Gen. Rodriguez and his troops approached the Cantu stronghold, Gov. Cantu made a hurried exit across the border to California—and the war was over. Later, Gen. Rodriguez became governor of the territory, and eventually president of Mexico. In later years Cantu was forgiven and repatriated.

In the early years, and even today, many of the residents of Mexicali use wood for both heating and cooking purposes, and wood-cutting has been an important enterprise in the Mexican valley of the lower Colorado river. During the winter months,



ancient trucks comb the desert for many miles outside the cultivated area gathering mesquite, ironwood and palo verde for fuel purposes.

There is an abundant growth of ironwood on the bajada surrounding Laguna Salada, and since there was good spring water at an accessible oasis on the west side of the lake floor, Gov. Cantu set up a wood-cutters' camp there. It was known as Cantu camp, and the oasis became known as Cantu palms.

The camp was long ago abandoned, but the road there is still fairly passable, and we reached the site of the old camp near

the palm trees just before dusk. We immediately built a big fire on a rocky point above the arroyo to serve as a signal light for the jeepsters, and then put a pot of stew on an improvised fireplace.

We maintained the signal fire until eleven, and then crawled into our sleeping bags. It was near daybreak the following morning when our companions came whooping into camp like a troop of Indians on the war path. Their jeep had been in trouble. It really wasn't the fault of the sturdy little war veteran. Luke Fisher had failed to allow for the fact that while a jeep will go most anywhere, its tires are made



Above—The hard smooth floor of Laguna Salada, now dry, makes a perfect natural roadway. Cocopah mountains are in the background.

Below—Members of the author's exploring party. Left to right—Maclovio Vasquez, Mike Thaanum, Frank Adams, Arles Adams, Luke Fisher and Bill Sherrill.

of the same kind of rubber as those of civilian automobiles. He had gone racing through some weed stubble on the edge of the lakebed and had poked holes in three tires. The party had spent most of the night wrestling with those obstinate jeep rims, and patching tires. It was a cold, hungry night for Fisher, Bill Sherrill, Frank Adams and Mike Thaanum, his companions.

We warmed up the stew and they turned in for a couple of hours' sleep. Then we all climbed the slope to Cantu palms.

There are three distinct groups of trees here, located in two coves with a rocky ridge between them. In the main group are 71 mature trees bearing the scars of many fires, and 92 healthy young palms about three feet in height. There is also a fine growth of tiny seedlings, giving the prom-

ise of a dense jungle of palms here in future years.

Evidence of the old wood camp can still be seen. There are grass-covered ditches and dikes marking the efforts of former occupants to impound water in a reservoir. There is considerable water, but it comes to the surface in seepage areas rather than in well-defined springs.

Cantu's wood-choppers were not the first humans to camp at this oasis. In a pile of boulders near the center of the oasis are the mortars where Indian women ground seeds. Manuel Demarra had told us there were wild Indians—the Cocopah—in many of the canyons in the Sierra Juarez as late as 1904.

On a previous trip here with Dr. E. M. Harvey of the department of agriculture, he had pointed out a single stalk of the so-

called desert orchid—*Epipactus gigantea*. This is a rare plant on the desert and I made a further search for it on this trip, but without success. Growing in the damp places was considerable Indian basket grass, *Juncus mexicanus*. This is a harmless looking rush which pricks the skin like an electric shock when one walks through it.

We climbed the ridge to visit the palms in the next cove. A huge boulder at the top of the divide is covered with petroglyphs. They are on the flat top surface and have been subject to so much weathering as to be hardly distinguishable unless one is looking for them.

Standing on the ridge looking down on the palms we had just left, one discovers that the trees grow in a perfect circle with a diameter of about 200 feet, as if they had been planted there. The circular character

of the oasis is not apparent when one is among the trees. The phenomenon is so unusual that the first time I glimpsed this circle several years ago I scrambled back down to the floor of the cove to see if I could discover the reason for this formation.

The answer was clear. At an earlier period the arroyo which crosses the cove was divided into two water courses, one around each side of the bowl-like glen. Undoubtedly there had been running water in these channels during the prehistoric period when these old palms were germinated. They had grown, as all palms grow, where the water was. The streambeds are dry now and water seeps out in a score of places on the floor of the cove, but the circle of veteran trees remains.

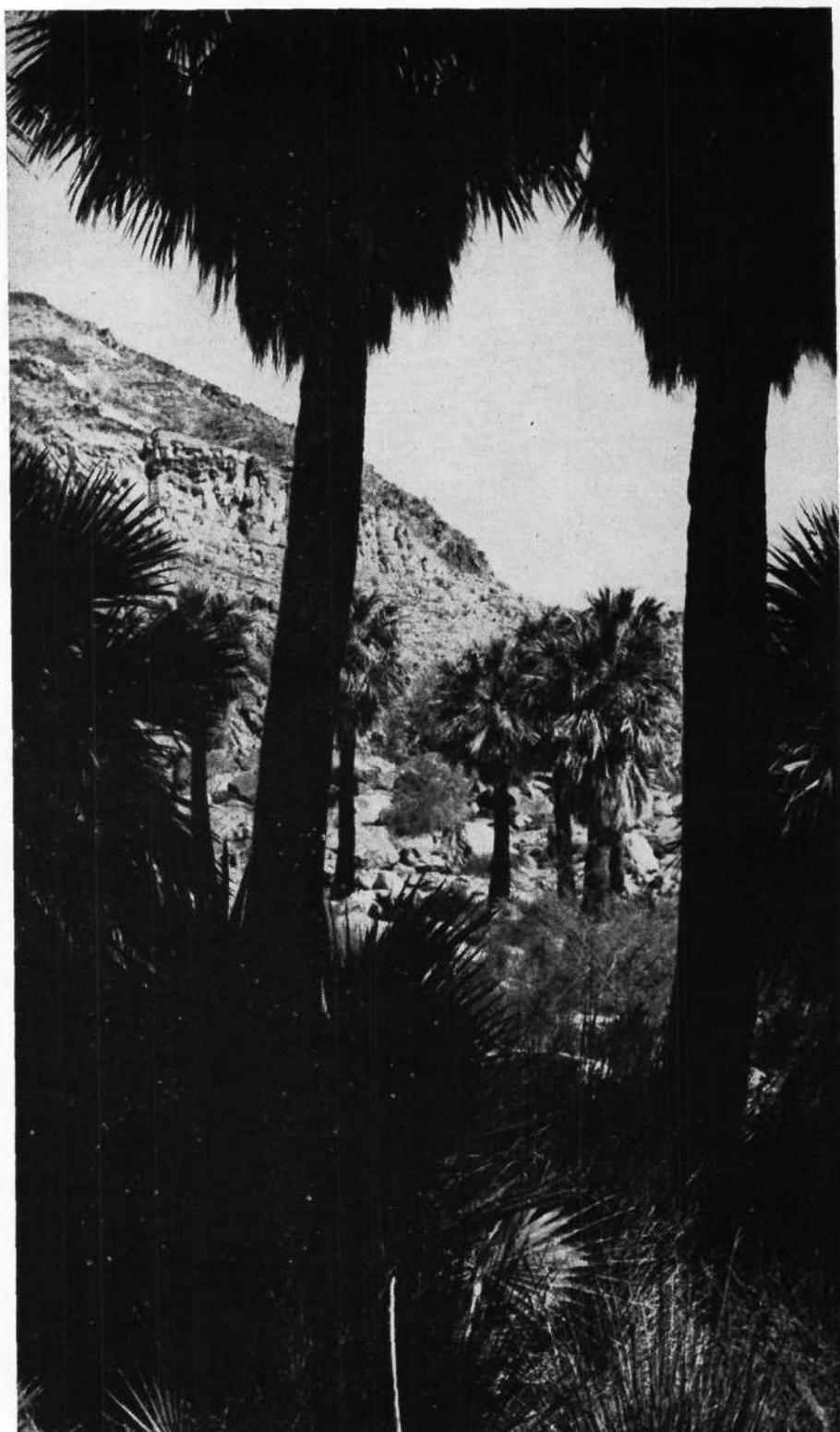
In the other cove I counted 56 mature trees and a score of seedlings in the upper group, and 72 young and old palms in the lower group. The total for the three-group oasis is 291 trees, with at least that many more baby palms coming along to replace them eventually.

It is not always easy to distinguish the stone tools of the Indians from those of a later generation of white men, as one discovers at this oasis. Near the base of a palm in the southernmost group is a single boulder containing two of the most perfect mortars I have ever seen. They are at least 18 inches deep and with such smooth and symmetrical side-walls as to appear machine made. And perhaps that is the way they were made despite the remoteness of this spot. On one of my first trips to Cantu palms I found an old car axle with a gear attached to one end, in one of the holes. And near by was a pile of ore probably brought down from the mountains. Obviously, these mortars had been used for grinding ore with a salvaged axle as a pestle.

It would appear that the Mexican miners had found a quartz pocket with considerable free gold somewhere in this area, and had worked here for months and perhaps years crushing and panning their concentrates with the crudest kind of tools. If I ever decide to go hunting for lost mines I am going to explore those mountains back of Cantu palms. I would like to find the shaft that gold came from. It takes rich ore to justify that kind of milling.

Further evidence of the importance of this camp in comparatively recent years is the well-preserved stone corral on a little bench across the arroyo from the oasis where the mortars are located. This corral is big enough for a hundred head of horses, and with a little repair work could be made quite as serviceable as when it was built.

It is easy for one to sit on the ridge overlooking the three little palm groups in the two coves at Cantu palms and visualize the pageant of dark-skinned men and women who have dwelt among these palm trees—the Cocopah women who sat on the rocks



Mexican wood-cutters once twanged their guitars beneath these palms at Cantu oasis.

and gossiped as they ground mesquite beans brought from the shore of the old lagoon which is now dry; the wood-cutters who sat around a flaming campfire and twanged their guitars and sang away the long winter evenings; the prospectors who came down out of the hills with their sacks of gold ore, and then left perhaps because their pocket of gold played out.

It is not easy today to foresee any good reason why humans should ever again come to the Cantu springs to establish homes, but it is the most accessible among the palm oases on the desert south of the border, and probably will enjoy increasing popularity among motorists who of necessity must limit their "foreign travel" to lands not too far from home.



Where miners once crushed their ore in stone metates. Bill Hillery (left) and Arthur Woodward demonstrating this primitive method of milling rock.

ONLY ONE NAVAJO CHILD IN THREE HAS OPPORTUNITY TO LEARN ENGLISH

In a belated effort to solve the critical situation on the Navajo Indian reservation where 14,000 out of the 20,000 children of school age are denied an opportunity to go to school because there are neither classrooms nor teachers for them, Dr. George I. Sanchez of the University of Texas will this month undertake an educational survey of the Navajo Indian reservation.

"The situation is without parallel in modern American education," said Commissioner of Indian Affairs William A. Brophy. The report of Dr. Sanchez will supplement studies being made by Dr. Willard W. Beatty, director of education for the Indian service.

A delegation of Indian leaders recently visited Washington to make a direct appeal for more schools for their people. "The day is close at hand," said Brophy, "when thousands of them will leave the reservation because its resources can support only part of their increasing population. They understand the necessity of education to cope with the outside world since most of them cannot speak English."

In the meantime Congress has included \$3,000,000 in the interior department appropriations bill for schools on the Navajo reservation.

ILLEGAL MEXICANS POUR INTO CALIFORNIA FROM BELOW BORDER

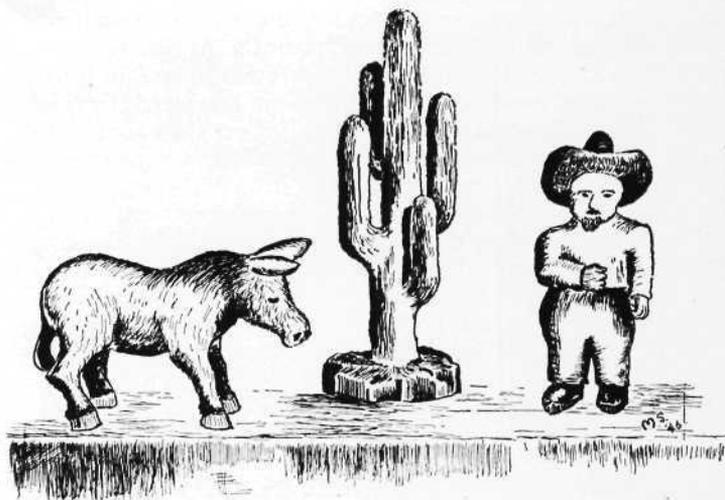
"Wet" Mexicans are coming across the international border between Yuma and Jacumba, California, at the rate of 2000 a month, according to the estimate of Albert del Guercio, director of immigration and naturalization for a district comprising parts of California, Arizona and Nevada.

The director said 12,000 illegal entrants had been deported since January 1, but still they come in increasing numbers. Del Guercio also said that smugglers or "conveyors" of aliens are being apprehended at the rate of five per week and indicted. He added that the price per head of running aliens into this country has jumped from a pre-Pearl Harbor price of \$5 to \$10 to the present post-war price of \$25 to \$100 per person or as much as the alien is suspected capable of paying.

The term "wet Mexican" originated years ago in Texas where illegal entrants had to swim the Rio Grande river to reach the United States, and they often were caught by border patrolmen before their clothes had dried.

Enforcement of immigration laws is complicated by the fact that illegal aliens do better work for less pay than California Mexicans, and Southern California ranchers give little cooperation to law-enforcing officers.

Jackrabbits lit out for distant parts. Roadrunners fluttered and fled. Chipmunks took to their deepest holes and even the lizards disappeared. Never had there been such furore around Ghost Mountain. This was homecoming day for the South family. An assembly of friends was gathered to welcome them, with cameras clicking, as a Navy truck column, accompanied by a vicious looking little tractor, came crashing through the narrow yucca-bordered road, with all the bluster of an invading task force. After months of exile, while the Ghost Mountain area was part of a gunnery range, the Souths at last have come home to Yaquitepec, to continue life on the mountaintop which became their "desert refuge" 15 years ago.



Desert Refuge

By MARSHAL SOUTH

THE DESERT wind comes rustling up the wash and the shadows of the swaying junipers are cool. The morning sun is an hour high above the summit of Ghost Mountain and the huge storm-scarred granite boulders that rim its crest are already arrayed in harsh contrasts of glare and shadow against the blue background of the sky. From where I sit, among the yuccas and junipers at the foot of the precipitous ascent, those boulders look a long way up, and the knowledge that every pound of the jumbled collection of household possessions that surrounds me has to be shoulder-packed up the steep trail and beyond that frowning rampart does not make them seem closer. There are times when Ghost Mountain does appear savagely high.

But there is no help for it. For, like the mail, which we are told always "must go through," all these possessions and "household gods" of Yaquitepec must go up. And there is no other way but to carry them.

For the exile is over. We are once more upon our own *tierra*. Had circumstances been just right this might have been accomplished some weeks earlier. But there were difficulties, chiefly those of water, which had to be ironed out first and these occasioned some delay. Yesterday however Uncle Sam's highly efficient Navy, having been given the "all clear" sign, swooped down upon our temporary abode with two huge trucks and a detachment of eager Navy men who whisked up our chattels and charged them thunderously back across the abandoned gunnery range to the very foot of Ghost Mountain.

Our return to our old haunts was not lacking in certain elements of the melodramatic. For as the truck column, accompanied by a grey vicious-looking little tractor and various other cars came winding and crashing in through the narrow yucca-bordered road, it had all the earmarks of an invading task force. There were cameras, including movie cameras, lined up by a group of friends who had assembled in the desert to welcome us home. Never since the first coming of the Spaniards had there been such excitement in the Ghost Mountain country. The jackrabbits promptly lit out for distant parts. The roadrunners fluttered and fled. The chipmunks took to their deepest holes and even the lizards had urgent business elsewhere. Such a riot and hubbub. It was a vastly different arrival from the day, now over 15 years ago, when we had driven a weary, limping old Ford into the shelter of a clump of junipers and had set out to climb an unknown mountain, carrying as our burdens a can of pineapple and an axe. It was true that the axe—the selfsame axe—did come back this time with us again. And also, by strange coincidence, there came a can of pineapple—for one of our good

Marshal South sketched a little group he whittled out of mescal pith, a material he says is fascinating to carve because it is so light and soft. But it is so fragile that the finished product should be protected behind glass.

friends, coming out to welcome us home, had brought it as a gift. But for the rest things were very different.

There might have been even more excitement to our homecoming, if naval plans had materialized. For, by inspiration, and at much trouble, they had sent along the vicious-looking little war-dog tractor, aforesaid. It was the idea that the "cat" would romp up our mountain dragging behind it a sled upon which our effects were to be piled. This plan however never got beyond the theoretical stage. For, while a war "cat" can go almost any place on any normal mountain, the slopes of Ghost Mountain more than qualify up to Sherman's famous remark about war. They have deceptive stretches on them—that look very nice from the bottom. And then they switch off into picturesque bumps and ridges that are—well, just what Sherman said. Nothing but a thoroughly organized military force, equipped with bulldozers, high explosives and all the men and machinery of difficult roadmaking could break a path to the summit.

So the idea of tractoring our possessions up to the little house that stands upon the crest was abandoned.

Not without some slight friction and bitterness. For the "master of ceremonies" was very anxious to try his tractor—which he had provided, at some trouble, for the occasion. He professed solicitude for the Navy boys—fearing that some of them might physically collapse, from sunstroke or other causes, if they were subjected to the strain of carrying our goods up the hill. The tractor, even if it succeeded in getting only part way up, was in his opinion the only way out.

So, as he was so determined and as I was equally determined not to have the vegetation of the lower slopes of Ghost Mountain scarred and destroyed by ineffectual tractor flounderings—to say nothing of having the "cat" driver exposed to the very real danger of having his machine roll down the mountain on top of him—the whole affair ended in deadlock. The jackrabbits and other denizens were robbed of a violently exciting exhibition of tractor crashings. And the Navy boys—who were not themselves worrying about "sunstrokes"—were disappointed in not being able to get up to see Yaquitepec. They were a fine bunch of young men whom it was a pleasure to meet. They would have galloped up the hill with at least the major part of our possessions and treated it as an adventure. We want to express to all of them who made up the work party—petty officers, truck drivers, supervisors and men—our deep appreciation and thanks. Had it not been for the unfortunate tractor fiasco, the move back home to Yaquitepec would have been one grand adventure.

So the trucks rolled away and the "captains and the kings"

departed. And the disgruntled tractor betook itself off and left us and our effects at the foot of the mountain. At least we were mighty glad to get this far back. The stuff will go up. The three youngsters and our two selves will handle it. Fortunately there is no one to worry about *our* "sunstrokes" or *our* chances of physical collapse. Anyhow exercise never did harm anyone very much, provided they are sensible about it.

However, when the Navy had sailed away, we wasted little time in contemplation of our jumbled pile of goods. The day was still young, and was not this a gay occasion of rejoicing? Had not a bunch of loyal, dear friends journeyed far out into the desert to welcome us home with their good words, their recording cameras and their kindly gifts? What is life made for if not for joy and friendship? So away we all went, welcoming committee and all, up the trail to the summit of Ghost Mountain.

It was an enjoyable climb. The day was warm, but not too warm. And the wind that came in from the westward across the crests of the distant mountains brought the faint tang of the distant sea with it. Mescals were blooming, tossing their great fountains of yellow flowers against the sparkle of the sky. The aromatic scent of junipers was in the air and below us, as we went up, the whole wide sweep of the desert and its outcropping of sere mountains and rocky buttes seemed to unroll like a vast, silent map. Away off, beyond a stretch of grey-green creosotes, a pillar of red dust, marching across the dun surface of a dry lake, marked the fading retreat of the great vehicles of war that had brought no sound. The desert was utterly quiet.

Storm and neglect had wrought damages to the little house during our long absence. But already it seemed to be waking from its doze of waiting. The windows, which Tanya had cleaned on a hasty previous visit, winked a cheerful welcome to us. And the white gravel, still neat and orderly with the marks of Rudyard's raking, on the same occasion, seemed waiting to be patterned by eager young footsteps. Purple finches, contentedly rearing their broods in our weathered bird houses, winged off to vantage points on house beams and nearby ocotillos and watched our arrival with bright-eyed confidence. The old black scaly lizard whose usual station is upon a warm boulder just above the clump of beaver-tail cactus, roused himself from his sunning just long enough to peer at us curiously, then subsided again into drowsy content. Away off to the eastward, where the phantom shadows of the old sea still fill the dry gulfs and lagoons of the weird badlands with a ghostly simulation of blue water, the mountains and thirsty buttes slept in an elusive haze of pink and purple. Silence and utter peace.

There was to be still another happy note to our homecoming. For when we had come down the mountain again to see our house-warming party of friends off to their homes, we found an efficient looking jeep parked beside the other cars and we met Dan Taylor of Imperial who, as an official part of our home-bringing, had come up across the long, thirsty Carrizo trail to see that all arrangements went off smoothly. But he had been delayed, rendering assistance to a party trapped in the sand along the route, so he had been unable to reach Ghost Mountain until after the moving detail had departed. It was our first meeting with Mr. Taylor. But it might have been the ten-thousand-and-first. For there are some people whom you know at first sight. They speak your language. We fell upon each other as old timers. We knew, it seemed, the same people. We had roved the same sections of the desert. We shared the same ideas. It wasn't a dry "official" meeting. It was a reunion. Such things happen sometimes when you meet *real* human beings. They are meetings to be remembered.

So the day ended on a high note of happiness and deep appreciation. Deep appreciation for that most precious thing—friendship. For in all life there is no treasure which anyone can collect that can compare with friends. Gold and silver and precious gems are baubles—bits of metal and glass on the order of the useless trinkets that jackdaws and packrats hoard. And pa-

per money is an illusion founded on the fickle faith of governments. But friendship is something woven of the same substance as mercy and love and kindness and the glory of the Great Spirit. It is something which strengthens and sustains the soul. It is like a draught of fresh, cool water come upon suddenly amidst the burning sands of a weary desert. Friends! No one can measure real "wealth" by any other standard.

And thus we were thinking as, with full hearts, we climbed back along the trail that led to the summit of Ghost Mountain. We were thinking of Mr. and Mrs. Hatheway (who in their collection of home-welcoming gifts had included that oddly symbolic can of pineapple) and we were thinking of Mrs. Alice Blanc who, with them, had made photographic records of our homecoming. We were thinking of Mrs. Myrtle Botts who, no matter how her many duties pressed her, has never been too busy, over a long period of years, to give help to the many friends we have referred to her for directions as to how to reach Yaquitepec. We were thinking of Mr. Phillips and of Mr. Taylor and of "Chuck" Holtzer, and of the many, many others, near and far, whose very names alone would make a list much too long for the pages of Desert. We were thinking of Ad. and Bill Mushet, of the picturesque Banner Queen Rancho, with whom it has been our privilege to sit around many a campfire beneath the desert stars. And we were thinking too of Lena and Everett Campbell, of Vallecitos, in whose hearts burns undimmed the spirit of the Old West, and whose hands were quick to reach out and provide us with a haven of refuge when the Navy evicted us from Ghost Mountain. Of all these good friends and many more we were thinking as we slowly climbed the old trail and watched the pink flush of sunset touch the giant rocks that stand guard over Yaquitepec.

The sun is drifting down in the sky and the leaves of the old juniper, beneath whose low-crowding branches I have wedged my improvised typewriter table, are making shadow patterns on the paper. Reading back over what I have written it seems to me that this month's record is rather a personal one. But after all it is events and personalities that count. And this homecoming *is* a vital thing in which one's own feelings and the friendship, help and personalities of others are all inextricably bound together. So you can't write about it with dry formality. Sometimes I think that this would be a better world to live in if there were a lot less formality and convention and set forms and rules, and we all realized and acted as though we were all human beings together and could see ourselves as we actually are—all interdependent. All part of one great plan—as much connected together and part of each other as are the individual atoms in a pail of water. It's only when you pry them apart and separate them into diverse drops that you spoil the harmony.

I can hear voices coming down the trail. My industrious family—while I have been sitting here at the foot of the mountain—among the piled clutter of boxes, packages and bundles—have been making trip after trip, packing the most necessary articles up hill to the house. The typewriters are still down here, so as it was easier to bring myself down to the typewriter than to bring the typewriter up to the mountaintop, I have written this month's article in the "lowlands." But next month's ought to have the tang of the clouds in it, as my writing machines will be "topside" by then.

COURAGE

*It guides my weary feet o'er crags
And jagged rocks and endless moor.
And yet my spirit never sags,
And still I rest in Truth secure.
With Faith that God is at the helm
And knows in fullness and the whole,
No earthly storms shall overwhelm,
Nor keep me from my hoped for goal.*

—Tanya South

Old Man Groundsel

By MARY BEAL

IF YOU are on friendly terms with this "Old Man" you know the gay handsome appearance he sports in youth and how freely he often dispenses his largess of colorful radiance from valleys to mountains. One of the myriad Sunflower kindred, the genus is of world-wide distribution and probably includes more species than any other floral genus. *Senecio*, the botanical name, derives from *senex*, Latin for "old man," and refers to the copious silky pappus, likened to the silvery hair of old age. About 200 species are native to this country and you'll find the clan well represented in all the western states, the desert claiming a fair share.

You may know some of them as Groundsel, the name most commonly used, or Ragwort or Squaw Weed. Many bloom throughout summer, when few other flowers brighten the desert landscape. Some species are of importance as winter forage, while several others are known to be poisonous to livestock. A few were considered by Indians and early herbalists to have therapeutic qualities, decoctions being used as a mouth wash and gargle for catarrh and quinsy, and the simple juice was valued for the healing of wounds. Among cultivated garden species of *Senecio* are the *Cinerarias* and *Dusty Miller*.

The showiest desert *Senecio* that I know is the one generally called Creek *Senecio* or Douglas' Groundsel, or botanically as

Senecio douglasii

This species was named for that intrepid Scotch botanical explorer, David Douglas, whose name is borne by many Western plants. The leafy much-branched bush is usually 2 to 4 feet high, an attractive mass of rather delicate foliage, the herbage at first more or less woolly, the white wool falling early. During the long blooming season the bush is a glory of sunny color, each leafy branchlet ending in a loose cluster of flowers, each head 1 to 1½ inches broad, the disk a deeper yellow than the 10 to 13 narrow rays. The leaves are 1 to 3 inches long, divided into 3 to 9 remote, very narrow lobes. In maturity the yellow flower-heads become silky puffs of silvery white hairs. You may find it in bloom from May through summer and well into autumn, in valley and mountain, on sandy or gravelly slopes, flats, and dry stream beds, of the western Colorado and Mojave deserts and Owens valley.

Its variety *monoensis* is more herbaceous and smaller, the herbage usually a brighter green, without any white wool. It grows from the Mono and Death Valley region into Nevada, Utah, the northern and eastern Mojave desert, and throughout Arizona.

Senecio spartioides

Broom Groundsel, a common half-shrub, is similar to Threadleaf Groundsel but quite hairless. The leaves are entire and the numerous flower-heads disposed in close cymose panicles, blooming from July to October, at higher altitudes on dry open ridges, from sagebrush areas through the juniper and piñon belts into the pines, from western Texas to northern Arizona. Definitely placed in the toxic group.

Senecio longilobus

Threadleaf Groundsel, as it is commonly called, is classed as a variety of the Douglas *Senecio* by some botanists. It has similar foliage but the stems are woody only near the base and the herbage is densely and permanently white-woolly. The leaves are variable as to lobes, sometimes most or all of them entire. The flowers look quite like those that glorify the Douglas species, also blooming from spring to November. This is one of the



Douglas' Groundsel, showiest of the Senecios.

Groundsels prized by the Indians for medicinal use but it is in bad repute with the department of agriculture, which considers it to be one of the species most poisonous to cattle and horses. However, because of very low palatability it seldom is grazed if other forage is available. Common on dry open stony ridges, mesas, slopes and sandy washes from western Texas to Arizona, Utah and Mexico.

Senecio riddellii

A perennial herb, not a shrub, its leafy branching stems seldom over 2 feet high, often much less, blue-green, smooth and hairless, ending in quite showy flower-heads, arranged in rather flat-topped clusters. The leaves are divided into several narrow segments, shorter and neater than those of the preceding species. The heads are about an inch and a half broad, the dozen or so narrow rays bright yellow. The first flowers usually appear in winter, continuing to bloom through spring. On the black list of poisonous Groundsels. Found from western Texas through New Mexico, on mesas, plains and valleys, also reported in Arizona.

Senecio stygius

A rather succulent bright-green perennial herb a foot or two high, with hollow ridged stems, growing singly or with several branches from the base, the herbage nearly hairless except for scattered flecks of wool which are mostly deciduous. The rather thick leaves are quite dense near the base and long-petioled, about 2 or 3 inches long and cut into several coarsely-toothed lobes. Those above the middle are few, very small and sessile. Large loose clusters of sprightly yellow flowers terminate the stems, the blossoms an inch, more or less, across, the broad disk being deeper in color than the rays. Their showy splashes of color are a pleasing contribution to the springtime enjoyment of mountain areas in the eastern Mojave desert, southern Nevada and northwestern Arizona.

Senecio neomexicanus

Similar to the above is New Mexico Groundsel but the leaves are merely toothed, not lobed, and the plant has a fine covering of white woolly hairs. The stems are erect and unbranched, 9 to 18 inches tall, the basal leaves larger, elliptic and petioled, the few upper ones much reduced in size. The cymose cluster is made up of a generous number of yellow flower-heads an inch or more across, the 12 to 16 rays of lively hue. It thrives in mountain altitudes from 3000 to 9000 feet, blooming from April to August. Notably abundant in Arizona, it also flourishes in New Mexico, and is found in Southern California as far west as the San Bernardino mountains.

Eagle Hunt Hopi Practice

By DAMA LANGLEY

Art by Charles Keetsie Shirley,
Navajo Artist

WHY ARE eagles so important to you Hopi?" I asked the old Indian priest sitting beside me on the trail which leads to Shumopovi, first village on the Second Mesa.

"Eagles are Hopi, just like snakes are Hopi!" I waited for the well known story of Hopi lore. There always were new angles presented by each narrator.

"Long, long ago the members of the Eagle Clan, most powerful in our tribe, could fast and offer prayers on our sacred mountains, and then fly as though they were birds over all the land. They could locate water for us in time of drought, and see if any enemy tribe was near. And in those days we prospered. Our Eagle men flew near to the sun and bore our requests. They drifted with the clouds and guided them to our thirsty planted fields. They soared with the hot winds and turned them aside from the tender corn, so that it was not scorched or buried in drifted sand. Many times we were warned that the Utes or Apaches were near, and forewarned, we tumbled great boulders down the trails and over the cliffs on them when they tried to scale the heights to our homes. Those were good days for the Hopi!"

The priest leaned against a warm rock and blew smoke through his nostrils. He merely grunted when we were joined by his grandson, 17-year-old Kwa-hu, on whom would fall the clan offices of the old man now talking. Kwa-hu means "eagle," and the lad was very proud of his name, of his clan, and of his grandfather. The old man's long hair was bound into a club at the back, and a bright purple kerchief kept it away from his eyes. His faded velvet shirt was clean and provided a fitting background for the string of turquoise and silver he wore. There was no doubt as to the origin of his white cotton trousers. They came from a flour mill and still bore faint letterings. I've no doubt they were backless as are all the field pants of the older Hopi men, but since he remained seated I had no way of verifying my suspicions. His legs were encased in stock-



Because the eagle flies closer to the sun than any other bird, it is sacred to the tribesmen who dwell on the Hopi mesas in northern Arizona. Its feathers play an important part in all Hopi ceremonies—and since it is necessary to catch the bird before its feathers can be plucked, the younger members of the tribe are assigned to the task of capturing live eagles. It is a hazardous and exciting adventure, as you will discover in reading this story.

Keetsie

... of the ...-Makers

ings knitted by himself and held in place by a strap under the instep. Brown sheepskin moccasins covered his feet. Any sunny day the old men of the tribe may be found beside a sheltered wall busily clicking needles while they knit the family supply of footless stockings. And in the summer when they are sent to the fields to sit under brush shelters and direct the children in the fight to protect plantings against birds, small beasts and even roving Navajo, their hands are busy with the knitting.

With his grandson settled beside us the old man continued his story: "After awhile the Apaches began to threaten the planters down in the valley and to steal our girls when they went at dawn to bring water from the spring at the foot of the trail. The young men of the Eagle Clan went to the mountains." He pointed with his lips toward the snow topped San Francisco peaks. "There they fasted and prayed and purified themselves in the smoke of the piñon fire. Then they moved away through the sky toward where the Apaches live. They saw a great column of warriors move toward our land and they hastened back to the sacred mountain to leave their wings and come home to warn us. When they touched the tops of the crags they all turned to real eagles, and only then did they know that evil spirits of the Apaches had lurked in the clouds to bewitch them. When they could no longer return to human shape they flew straight here and circled around and around the mesa, now drifting far toward Apacheland, and then flying quickly back to the mesa. That way our people were warned. And from that day the eagle has been the guardian of the Hopi people."

Kwa-hu spoke, "Tomorrow I go with the Eagle hunters. I have passed all the tests and made my prayers. My *bahoos* are on the shrine." I knew he meant that prayer sticks, tipped with eagle down, were inside the hidden slab shelter housing a crudely carved sandstone snake. Prayer sticks are always planted there before any great undertaking.

The old man looked at Kwa-hu as though measuring his strength. I watched both their faces. The boy was serene and confident and spirited, eager to be tried. The old man's face mirrored the strength



This photograph of a Bald Eagle was taken by George Kirkpatrick. This is not the same species of eagle, however, as is described in the accompanying story.

and patience and endurance of the desert. He had faced and survived the storm and stress of three quarters of a century. Now he was old, only his eyes were keen and bright. They had looked on life and danger boldly, perhaps with exhilaration, but now the eager grandson must carry on.

I heard the ceremonial drums in the kiva all that night and at dawn the band of eagle hunters left the mesa. Being a woman, I could not go down into the desert with them but grandfather and I sat on our rock and with field glasses followed the hunt. Three boys beside Kwa-hu were being confirmed as Eagle clansmen. They were painted from head to foot, naked except for loin cloths, moccasins and small leather skull caps tied under their chins. These caps were adorned with a rabbit's tail and small bunches of eagle feathers.

The middle aged man in charge of the boys was painted, and secured to his long thick hair were three magnificent eagle tail feathers. Upon the conduct and accomplishments of the boys that day depended their right to wear important eagle feathers from then on. Following the hunters a group of clan members carried wooden frames and rawhide strips to be used in conveying the captured birds to the mesa. There also were water boys for the expedition, and I saw more than one of the piñon gum water tight bottles slung over a bare back.

Kwa-hu had located an eagle's nest early in the spring, and for many days bowls of water and ceremonial meal had been kept at the base of the cliff below it. These precautions were taken to ward off evil to the young nestlings and also to warn any



eagle-minded Navajo that this nest was on the hereditary eagle nesting territory of the Hopi.

We watched the group as they trotted across the cultivated fields below and were lost in a coulee. By and by they came into view where the canyon headed on a mountain slope.

"Now they have started up the mountain side," I told the old man, who grudgingly had relinquished the glasses after looking through them upside down, wrong end to, and with the adjustments thoroughly disorganized. "One of the boys leads the hunt!"

"Kwa-hu," grunted the grandfather. "How do you know it's Kwa-hu?" I asked.

"I know because he is always the leader. He leads in the races, and in driving away Navajo horses." The old man chuckled. "He always climbed to the top of the peach trees for the first ripe fruit, and once the mothers thought he should be punished because he led the group of boys that decorated the faces of all the babies with paint the women made ready for their pottery." I laughed with the old man. So many times I'd seen the fat brown babies strapped like small mummies to their cradleboards and set up in a solemn row along a wall where the mothers painted pottery and gossiped. Yes, Kwa-hu doubtless was the boy in front.

There is danger in this eagle hunting. *Aquila chrysaetos* the great Golden eagle of the desert, with a wing stretch up to eight feet, is a fierce powerful fighter. The root of Hopi ceremony is entangled in eagle feathers and rattlesnakes. The royal crest of the Hopi tribe should be a Golden eagle clutching a rattlesnake in its talons. In a few weeks time rattlesnakes would be gathered from the desert and brought up the trail for the nine-day ceremony in which eagle feathers fan every movement, and where the snakes join in a symbolic dance from which they go to carry news to Hopi underground water gods. Today's expedition must secure the essential prayer plumage for the Snake dance. There never are more than three eggs in a Golden eagle's nest and usually only two. The nest is built on high inaccessible crags and many Hopi lads have met their death trying to reach a nest.

The glasses were useless because the hunters were so far away, and while we

waited for news of the hunt grandfather gave me highlights on the importance of eagles in connection with Hopi welfare.

"The eagle is our sacred bird. He flies closer to the sun than any other living thing, and of course the sun is the messenger of the great spirit carrying life to all our people. Eagle plumes are prayer carriers, the connecting link between heaven and earth. We Hopi people never begin any task without offering homage to our gods with prayer plumes. Before hunters go out looking for deer or antelope they have a ceremony in the kiva and sing to an eagle tail feather in a basket. It rises and sways to the song and then falls over. Whichever way the tip of it points that's where hunting is good. The Navajo do this same thing, and many years ago it was necessary to agree upon eagle hunting places which would belong only to the Navajo, and those belonging only to the Hopi.

"Eagle feathers are traded with California tribes for sea shells and bright colored pebbles and for tortoise shells which are used by the Antelope and Snake priests in prayers for water. Eagle feathers never are traded for frivolous things or for food just because one's belly is empty.

"No Hopi house is built without an eagle feather under each corner stone, placed there by the House Blessing priest, and when the roof beams are up he ties a bunch of feathers from an eagle's breast to a piñon branch and fastens it to a beam. This insures tranquillity and happiness for the household.

"Eagle down feathers are blown from the finger tip to point the way to lost sheep or horses. Any Hopi who loses his way in big cities of the whites, takes a bit of eagle down from his medicine pouch and finds his route by following the guide."

I thought I'd like to test that method in Chicago's murky Loop!

"During the weeks of making ready for the Snake dance, eagle feathers are most important. All prayer sticks have them, and ears of corn are decorated with them and put before the colored sand paintings in front of the kiva altars. Wherever water is used in the ceremonies it is sprinkled from the tip of eagle wing feathers. Most important of all, when the Gatherers go forth to bring our Snake Brothers to the kiva they carry bunches of eagle wing feathers with which to soothe the snakes. A coiled snake will strike at the feathers then try to run away, but a Hopi strokes him with the eagle feathers and then swiftly scoops him up and deposits him in the strong leather bag carried for the purpose.

"While the dance goes on you have seen how the Hugger softly strokes the snake dangling from the dancer's mouth. He brushes the snake's head away from the dancer's face with his eagle fan."

Grandfather interrupted his story to pass a bit of gossip to some other Indians.

My eyes fell on the burial ground of the tribe beside the Corn Rock. I recalled that no Hopi goes on his last journey unprotected. Over the covered face is draped a bunch of eagle feathers, and when the body is seated in its grave and faced toward the Grand Canyon where the soul will go, a cotton string leads from the depths of the grave to the surface and then continues along the top of the ground toward the canyon. On the end of that string is an eagle feather.

I left the lookout rock and visited here and there around the village. This was the home mesa of my beloved White Eagle (Desert, August, 1941), the loyal light-hearted girl who had shared my home and heart for many years. When a fatal illness struck, and we could not save her, she came home to die with her own people and be buried there beside the trail.

The women were busy about their daily tasks, all but the female members of the Eagle Clan. They were preparing for a great feast on the morrow. Piki bread was being peeled off the baking stones, and many a sheep lost his head over the eagle hunt. I steeped myself in the calmness and peace of the village while I sat with a basket weaver and watched her making a thing of beauty from desert grasses and yucca fiber. At length I went back to my rock. Grandfather was there before me, and far down in the desert we could see the returning hunters. As they drew nearer I saw they were carrying eagles tied to the wooden frames . . . Soon the village hummed with the story of Kwa-hu's exploit.

When the hunters reached the eagle's nest that morning, each lad had his hands and arms bound with strips of sheepskin to protect against beak and talons. The fingers were left free so as not to hamper climbing. Then the older man opened the sacred pouch and gave some down to each boy. They blew it from the tip of a finger



and air currents caught and whirled the feathers upward. Kwa-hu's went straight toward the nest and he was chosen to make the climb. The other boys followed and stationed themselves as a sort of human chain to pass the captured nestlings downward.

The crag was sheer and almost lacking in footholds. Kwa-hu blessed his grandfather for the gruelling hours of practice forced on him in climbing cliffs around the mesa. The two young eagles had heard the hunters and were screeching with rage and fright when he reached the nest. They were more than half grown and vigorous young kinglings, so he was well winded and scratched before he had secured their legs and passed them one after the other to the boy below.

"Look out, Kwa-hu, there's the old one!" She struck her ravished nest like a rocket bomb and without preamble carried the war to hapless Kwa-hu. One full blow of her wings would have swept him to the rocks below, but he crouched under a protecting ledge and shielded his face from her claws. While she circled for a new onslaught he managed to wrench a heavy stick from the nest's foundation and when she swooped he struck her such a blow on the head she was stunned and flopped to the ground at the base of the cliff. Such luck was almost unknown, and Kwa-hu was quite a hero. The huge eagle was firmly tied before she regained her fighting spirit and it was a triumphant procession that came into the village at sunset.

Kwa-hu was scratched and bruised from his fight and across one shoulder and down his back were three bleeding welts made by the talons of the embattled eagle. The old eagle was carried to the top of the house where the Eagle Clan priest lived, the house of grandfather! It was a great honor to have the eagle on one's roof, a great honor, and nothing was said of the labor involved in catching mice and prairie dogs to feed the sullen captive, or of the lambs slaughtered and cut into strips to feed the royal bird.

Kwa-hu, with grandfather, now in full ceremonial paint, retired to the Eagle kiva and I saw no more of them that day. Grandfather managed to get through with his offices early next day and joined me on my accustomed rock.

"Someone in the Eagle clan, some woman, used a knife or an awl yesterday in their work, and that is why the eagle was able to scratch Kwa-hu. Women haven't much sense," grumbled the old man.

"Come and see my eagles!" The battered hero overtook me walking through the village. One of his eyes was nearly closed today and the patches of healing ointment on the scratches could not conceal their depth. We went to the housetop and viewed the disconsolate captives. I ached with pity for them. They were chained there and had exhausted them-



Old Walpi, one of the ancient towns of the Hopi in northern Arizona.

selves fighting against their bonds. Now they only opened their beaks and uttered angry hoarse screeches at us.

"What are you going to do with them?"

"When the time is right our priests will pluck the feathers. Feathers from this old one should bring quick answers to our prayers."

An eagle planed across the sky, hung for a moment suspended in the blue then

dropped like a plummet to a crag. Kwa-hu's eyes gleamed.

"That means a nest," he said, "I'll get some more!" He had forgotten me. His eyes were turned toward the crag where the eagle nested and I went down the trail to join my party camping in the desert, happily unaware that his strength and cunning soon would be pitted against the Japs on the crags of Iwo Jima.

ROCK CLIMBING . . . Picture Contest

Because of the rugged precipitous nature of many of the desert mountain ranges, this is a popular playground for those who enjoy the high adventure of scaling difficult peaks and pinnacles. In order to give Desert readers a glimpse of where and how these girls and boys of the rope and piton fraternity seek their recreation, Desert's August photo prizes will be awarded for rock climbing pictures, preferably action shots. Photos are not necessarily limited to desert area.

First prize is \$10, and second \$5, and for each non-winning picture accepted for publication \$2.00 will be paid. Pictures must reach the Desert Magazine office by August 20, and the winning prints will be published in the October issue.

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

Mines and Mining . .

Washington, D. C. . . .

Use of scientific instruments for the detection of minerals far beneath the surface of the earth has made necessary a new law governing mining locations, and such a bill has been introduced in the U. S. senate. It provides that claims may be staked on geophysical findings, even though no mineral is visible. These claims must be square, are limited to 20 acres each, and not more than 10 of them may be adjoining. Surface prospecting must start within 60 days after location. Not later than 30 days after the expiration of one year from date of location, actual physical exploration in the form of diamond drilling, shaft-sinking or other evidence of intent to reach the ore body must be started.

Lovelock, Nevada . . .

Operations were scheduled to be resumed this month at the Standard gold mine near Rye Patch. Before the war the Standard was a big producer of low grade, its output ranging from 500 to 700 tons daily. The company sold much of its pre-war machinery to tungsten miners, but has been installing new equipment, including a power shovel for open pit operations.

Winnemucca, Nevada . . .

Getchell mine, largest pre-war producer of gold in Nevada, is back in operation again and expects soon to be mining 1500 tons of ore daily. The Getchell was allowed limited operation during the war because the ore yielded an important amount of arsenic, but in the summer of 1945 the property was closed down. Roy A. Hardy, consulting engineer, reports that an improved metallurgical process has been perfected for the treatment of sulphide gold ore.

Boise, Idaho . . .

Idaho Mining congress recently endorsed the movement for a hike in the price of gold by passing the following resolution: "We are in a period of rising prices and increased cost of production, and since the price of gold is fixed, much material that was ore becomes waste because it cannot be mined at a profit. Since the production of gold was a well established industry employing directly and indirectly many people, and inasmuch as the United States is the owner of approximately 22 billion dollars in gold, we recommend that the price of domestic gold be fixed at \$56 an ounce."

Salt Lake City, Utah . . .

When Attorney General Tom C. Clark on June 17 approved the sale of the War Assets Corporation's Geneva steel plant to the U. S. Steel corporation for its bid of \$47,500,000, the last obstacle to the disposal of the property was removed. Immediate production of pig iron and steel with facilities now available is to be started, according to corporation officials, and this will also reactivate iron and coal mines which supplied the raw material for the plant.

Beatty, Nevada . . .

Tracing float found near the highway at the foot of the hills, Claude E. Looney, highway employe stationed at Lathrop Wells, has discovered a vein of copper and gold believed to hold considerable promise. The vein is visible from the highway 27 miles south of Beatty, and according to its locator, outcrops for a distance of five miles, ranging in width from 18 inches to five feet. Test holes show increasing values with depth.

Death Valley, California . . .

Following release of the property from its war-time use as an aerial gunnery range, the Lead King mines in Panamint mountains, Ubehehe district, has resumed operations and expects to increase its two-car-a-week shipments of lead ore as soon as additional tracking equipment is available.

Washington, D. C. . . .

The House decided that the price of silver should remain at its war-time figure of 71.11 cents an ounce. The Senate approved a price of 90.3 cents with a further increase to \$1.29 in two years. A bitter fight between western congressmen who favor the increased price, and eastern law-makers is predicted before the question is settled. In the meantime private and foreign owners of silver are holding back their stocks to take advantage of any increase which may be approved.

Oatman, Arizona . . .

Controlling interest in famous Tom Reed gold mine, including 30 patented claims and a 300-ton cyanide mill, has been sold by Oscar R. Howard of Los Angeles to Nye A. Wimer and William V. O'Connor. The mine has been shut down since 1937, but the new owners will explore the possibilities of resuming operation.

Dr. Carl J. Christensen, formerly of Bell Telephone laboratories, has been named dean of the Utah school of mineral industries. A. Leroy Taylor will continue as dean of the school of engineering which heretofore has been associated with the mining school.

Dr. Thomas M. Read, dean of Columbia school of mines, is quoted as estimating that petroleum reserves in the United States will last 3000 years at present rate of production.

Convention of American Mining Congress this year is to be held at Denver September 9-12, according to Secretary Julian D. Conover. More than 2,000 mining men are expected to attend.

Rumors of renewed activity in the Battle Mountain area are current as a result of recent surveys of the Alberto claims by Consulting Engineer Addison N. Clark. Clark is said to have made a favorable report on the property several months ago and is now working on supplementary details. Owners of the property are Mr. and Mrs. Ludwig W. Fliegner.

PEACETIME PROGRESS . . .

Experienced business management that achieved every wartime demand and kept rates low in contrast to other rising costs, is now directing its energies to carrying out a long-range development program designed to keep pace with expanding needs for electric power.

Realization of this program became an assured fact last December 13, when the people of Imperial Irrigation District voted overwhelming approval of the District's 1945 Power Development Project, calling for \$6,200,000 in Revenue Bonds to finance additions and betterments to their publicly-owned Power System, including an urgently needed steam-electric generating plant, vital substations, new transmission lines, and other required facilities.

Thanks to intelligent foresight and careful planning, the development program is under way!

Contracts for installation of equipment have been let and additional contracts will be approved by the District's Board of Directors just as rapidly as procedure will allow . . .

Yes, Imperial Irrigation District by means of close cooperation with its customers, now is in an all-out effort to develop and improve its facilities to help forward peacetime progress.



HERE AND THERE . . . on the Desert

ARIZONA

More Land for Veterans . . .

YUMA — About 5000 acres of reclaimed land on Yuma-Mesa project will be available for homesteading by World War II veterans by late 1947, according to Vaud Larson of reclamation bureau. Senate in June passed and sent to the President a house-approved bill permitting veterans to homestead reclaimed lands regardless of age. Heretofore a veteran had to be 21 or over. To qualify a veteran must show that his experience fits him for farming and that he has \$2000 or its equivalent in equipment and machinery available. Homesteaders are given 40 years to repay original reclamation costs plus cost of a 10-year development plan that follows completion of reclamation projects. In Arizona it is planned 150,000 acres eventually will be reclaimed in the Gila project—70,000 in Yuma-Mesa district, and 80,000 in Wellton-Mohawk district.

Indian Service Decentralized . . .

PHOENIX—William H. Zeh, former regional forester here, has been named by Indian Commissioner William A. Brophy as director of the newly created Indian Service district office in this city. This appointment is part of a general plan to decentralize the management of Indian affairs by establishing five regional offices. Under the jurisdiction of Director Zeh will be all Indian agencies in Utah, Colorado, New Mexico and Arizona.

Closed Jail Too Soon . . .

TOMBSTONE—This one-time roaring mining town, which recently converted its historic jail into a hotel, now finds that it needs a new jail. "We still have some visitors who ought to be in jail," said Mayor John Giacomini when he asked Cochise county supervisors for a jail appropriation.

Rare Frog Goes to City . . .

NOGALES—Visitors to the California Academy of Sciences, Golden Gate Park, San Francisco, now may see the Mexican mountain frog *Rana tarahumarae*, as the result of a recent expedition into southern Arizona by Joseph Slevin, the academy's curator of reptiles and amphibians. This little frog whose United States habitat is limited to southern Arizona, completes the academy's collection of western American frogs. Wallace Wood of the Steinhart aquarium in the Pajarita mountains west of Nogales, accompanied Slevin on the successful hunt for the frog.

Prospector Still Missing . . .

PHOENIX—Rattlers and recent mine cave-ins caused the abandonment of a search for Albert Johnson, a 65-year-old prospector who had been out looking for a rich mine. The searching party led by Deputy Sheriff Kenneth Pearce of Maricopa county, rode seven miles horseback to an abandoned Spanish mine in the foothills of the Verde river country. Pearce crawled into the tunnel, encountered a big rattler, and shot it. Further along the tunnel was caved in making it impossible to continue the search in that location.

Game Fish Doomed . . .

PHOENIX—What to do with the game fish as the receding waters of the Roosevelt and San Carlos reservoirs dry up is the problem facing the Arizona fish and game commission. Contracts have been made to sell "rough fish" from Roosevelt lake to commercial firms, but disposal of the game fish has not been solved. If the commission can figure a way to transport the fish alive in the summer heat, they will transfer them to other waters. Otherwise they seem doomed to slow death. It is against the law to sell them.

FILL 'ER UP



The fellow who said you can't improve on Nature wasn't a very keen observer.

Nature has done little to better the design and quality of her products.

Look at the poor pelican. He's been using the same fuel tank since time immemorial. And his fuel is on the same scale as it always has been.



On the other hand, Man has taken Nature's stuff and improved it for his own purposes.

First, he appropriated the leopard's overcoat to adorn himself and to divert the passing zephyr.

He harnessed fire and developed beef steak for interior decoration.

He shifted the family burdens from his wife to the back of pack animals.



Finally, Man discovered the principle of the wheel while dragging a deer carcass over a log.

Later, he perfected the internal combustion motor and snatched petroleum from Mother Nature to power it. At first fuel was pretty crude. The engine putt-putted along at about a gallon per putt.

Science and research took over, and today we have the last word in efficient gasoline: The New Shell Premium.

Here's a fuel that gives sudden starts, plenty of pick-up, peerless power, and maximum mileage.



Drive in at the sign of the Shell and fill 'er up with New Shell Premium.

Learn for yourself how Shell took a natural resource, rearranged it, and produced the greatest gasoline in the Company's history.

— BUD LANDIS

**Inter-Tribal
INDIAN
CEREMONIAL
GALLUP, NEW MEXICO**

AUGUST 15, 16, 17, 18, 1946

'Gators Come to Arizona . . .

TUCSON — Fifty-four alligators stopped off in Tucson June 25 for a resoaking job at a local filling station before continuing their journey from the swamps of Arkansas and Texas to the Arizona alligator farms near Tempe. Their captors were Bill Kimbrel, Pancho Molina and G. J. Boudreaux.

Bus Service for Davis Dam . . .

KINGMAN—Much of Oatman and Bullhead's transportation problem, arising as result of construction of nearby Davis dam, was solved June 27 with announcement by H. F. Blanton of Kingman Cab company that daily bus service between those points had commenced. Additional service is promised shortly.

Arizona Seeks Gulf Outlet . . .

AJO—Development of Rocky Point on the Gulf of California would give Arizona an accessible tidewater port much closer than Los Angeles or San Diego, and the project is under consideration by the Arizona corporation commission. Designated as a free port by former President Cardenas, and more recently confirmed by President Manuel Camacho, Rocky Point is only 250 miles by paved highway from Tucson. It is believed that the construction of a 1500-foot steel pier would provide facilities for boats of sufficient draught to handle ore from the Ajo district, and for other important exports and imports for southern Arizona. It is believed the main problem will involve the securing of concessions from both the American and Mexican governments to insure free movement of freight and travelers across the international border.

THE DESERT TRADING POST

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

MISCELLANEOUS

GOLD—Wanted, information about known deposits of gumbo, dobe or clay containing substantial values in gold, etc. Can dissolve clay economically. Possible lease or operate. E. C. Blackburn, 3123 Glen Manor Place, Los Angeles 26, Calif.

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

POSTALLY YOURS: Gay, chatty, thoughtful weekly letters. \$1.00 monthly. Send postcard for details. Sage Trail Gypsies, P. O. Box 751, Rialto, California.

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 Oxford 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.

BOOKS — MAGAZINES

WILDCRAFTERS MAGAZINE: Articles by experts on living outdoors. Only \$1.00 per year, 35c copy. WILDCRAFTER, Rt. 1, Alton Station, Ky.

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 21R51, 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, 1611½ 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

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.

REAL ESTATE

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

OWN A GOLD placer claim for pleasure, profit, protection against inflation or depression. Because of old age owner will sell rich placer claim where coarse gold and real nuggets are found. Good hunting and fishing, plenty of timber, good roads. For profitable operation, or investment, this claim is far above the average. Carl Morton, Weiser, Idaho.

For Imperial Valley Farms—

W. E. HANCOCK

"The Farm Land Man"

Since 1914

EL CENTRO — — — CALIFORNIA

CALIFORNIA

Home Rule for the Desert . . .

THOUSAND PALMS—Harry Oliver, known as Big Chief Whiskers, has launched a crusade for a new desert county to be composed of the eastern half of present Riverside county plus portions of Imperial and San Bernardino counties. "The desert country should have home rule," declares Oliver. Both Desert Center and Mecca have indicated they will bid for the county seat location.

Tram Construction October 1 . . .

PALM SPRINGS—Two survey parties are now mapping the route for the San Jacinto Winter Park tramway up the east side of San Jacinto mountain, and the pouring of concrete for the steel towers is scheduled to start about October 1, according to Homer Black, superintendent of the project. The tramway is to start in Chino canyon and end in Long Valley, over 8000 feet above the floor of the desert.

Victim of the Desert . . .

TRONA — Beside an empty canteen, the body of Peter Wolfer, 78-year-old prospector, was found face down in the sand 20 miles south of here in the Granite Wells area June 8—a victim of thirst after becoming lost. His home was in Los Angeles.

Plans for Patton Monument . . .

INDIO—As envisioned by Walter Irving, chairman of the Patton War Memorial committee here, the monument to be erected near the old Camp Young site is to take the form of a General Sherman tank climbing a rocky hill, with a shaft towering at one side. The shaft is to be constructed of iron ore from nearby Eagle mountains, and water will be piped to the site from the Los Angeles aqueduct, creating a little oasis of the spot. The Native Sons of the Golden West are sponsoring the memorial.

Eilers Sells Date Palm Beach . . .

MECCA—After 17 years' ownership of Date Palm Beach on the north shore of Salton sea, Gus Eilers has sold the resort to Mr. and Mrs. Roy C. Hunter, owners of the Royal Date garden of Indio, their sons Robert and Kenneth, and J. S. Stein. The property includes 580 acres. Eilers acquired the beach frontage from the Southern Pacific in 1929. New owners have announced that the resort will be closed until September 1. Eilers plans to devote all his time to his nearby date garden.

Gas Line to Span Desert . . .

BLYTHE—Federal power commission has given its approval to a 180-mile gas line to extend from Dumas, Texas, across the desert by way of Blythe to Santa Fe Springs near Los Angeles. Pipe is now being fabricated for the 214 miles of 26-inch pipe to be laid in California. Southern California and Southern Counties gas companies have contracted for the distribution of the natural gas in the Los Angeles metropolitan area.

Coachella valley's Thompson seedless grapes began moving to market early in June, many of them going east by air freight. Top price was reported from New York—\$13.37 a lug.

Scale Boundary Peak . . .

BISHOP—Los Angeles members of the Sierra club recently made a successful climb to the summit of Boundary peak on the California-Nevada border where they built a cairn and left a record of the ascent. The summit, 13,145 feet, is on the Nevada side of the line and is the highest peak in that state.

Inyo-Mono Group Active . . .

BISHOP—Plans are under way for reactivating of the Inyo-Mono association which until 1942 conducted advertising and information service to stimulate vacation travel to the scenic region on the desert side of the High Sierras. Because of overcrowded housing this summer, advertising for the present will be limited to featuring the winter sports opportunities here.

Twentynine Palms' weekly newspaper, the Desert Trail, has been sold by Bill and Prudence Underhill to Charles Neff Burger of Los Angeles.

Morrison-Knudsen, contractors, have been awarded the work on a 7-mile extension to the All-American canal serving Coachella valley. The canal eventually is to bring 75,000 acres of land under irrigation.

Tioga, Sonora and Ebbetts passes in the High Sierras are now open for summer travel according to District Highway Engineer Lowden of Bishop. Absence of late seasonal storms made the opening earlier this year than usual.

Eight tons of trout were taken by 5350 anglers from Crowley lake in the High Sierras during the first 21 days in May. A million cutthroat trout are being reared at Hot Creek hatchery in Mono county to be planted in Crowley lake this fall.



EAGLE DANCER

Exotic Pueblo Indian Dance captured in gleaming sterling silver by one of the Southwest's foremost Artisans.

A limited number of these distinctive dress ornaments (illustrated 1/2 actual size) have been fashioned for milady. A choice occasional gift.

POSTPAID \$7.50 — TAX INCLUDED SATISFACTION GUARANTEED

Copr. 1946 by Bass Enterprises
Background photo courtesy
New Mexico Tourist Bureau

New Mexico PIEDRAS
P. O. BOX 965 • SANTA FE, N. M.

NON-RATIONED . . .

**Basketball,
Bowling,
Baseball
SHOES**

VAN DEGRIFT'S
717 W. 7th Street
LOS ANGELES, CALIFORNIA

**Banner Queen
Ranch
Julian, Cal.**

SPEND YOUR VACATION
Relaxing, Swimming, Riding and enjoying Ranch Life at the Banner Queen in the desert foothills.

8 MILES EAST OF JULIAN ON HIGHWAY 78
Rates \$8.00 per day per person including excellent meals.
For reservations write or phone Julian 3-F-2

OUTDOOR LIVING IS MORE FUN with PORTA-FREEZE

COOLS FREEZES QUICK-FREEZES

SPORTSMEN
Have plenty of ice wherever you go... Keep fish or game FRESH by freezing.

CAMPERS VACATIONERS
Solve refrigeration problems with a PORTA-FREEZE.

MOTORISTS PICNICKERS
Keep food or drink either HOT or COLD in a Porta-Freeze.

USES WET OR DRY ICE - Porta-Freeze refrigerates food...cools beverages...stores or makes ice...quick-freezes fish or game...retains heat or cold...For use with cars, trailers, boats, planes...on trips or at home. Available in two sizes. See your dealer or write direct for illustrated booklet describing many new uses.

CALPLASTI CORP.
8364 Beverly Blvd. Los Angeles 36, Calif.

DESERT QUIZ

The Quiz editor has picked a wide range of subjects for this month's test of your desert knowledge. The questions range through history, mineralogy, geography, lore of the desert, current events and Indian customs. If you know 10 of the answers you have more than an average knowledge of the desert country. A score of 15 rates you up near the top of the class. Eighteen correct answers is just like hitting the bullseye on the \$64 question, except that you don't get the sixty-four dollars. Answers are on page 36.

- 1—If your car was stuck in the desert sand and you had neither shovel nor axe, and only four kinds of shrubs were available to put under the wheels for traction, you probably would pick: Greasewood..... Bisnaga..... Cholla..... Ocotillo.....
- 2—The 20-Mule teams of early Death Valley history were associated with the mining of: Gold..... Silver..... Borax..... Gypsum.....
- 3—The big war-built plant at Geneva, Utah, produced: Magnesium..... Steel..... Copper..... Lead.....
- 4—The Bill Williams tributary enters the Colorado river just above: Boulder dam..... Imperial dam..... Davis dam..... Parker dam.....
- 5—Winnemucca was a chief of the: Cahuilla Indians..... Pahutes..... Hualpais..... Yumas.....
- 6—Income of the Navajo Indians is derived mainly from: Sheep raising..... Silversmithing..... Harvesting piñon nuts..... Basket-weaving.....
- 7—Crystals most commonly found in geodes are: Quartz..... Calcite..... Feldspar..... Tourmaline.....
- 8—In the lore of the desert, the name Breyfogle is associated with: Railroad building..... Colorado river transportation..... Lost mines..... War with the Apaches.....
- 9—Color of the Nolana blossom is: Red..... White..... Orange..... Blue.....
- 10—If you lived in the Salt river valley of Arizona, your irrigation water most likely would come from the reservoir behind: Elephant Butte dam..... Coolidge dam..... Boulder dam..... Roosevelt dam.....
- 11—Archeologist who originated the tree-ring method of dating ancient Indian dwellings was: Douglass..... Bandelier..... Colton..... Hewett.....
- 12—The lumbering town of McNary draws its timber from: Harqua Hala mountains..... Wasatch range..... Sangre de Cristo range..... White mountain area.....
- 13—The door of a Navajo Indian's hogan invariably faces: East..... West..... North..... South.....
- 14—If you wished to communicate with the Commissioner of Indian Affairs, you would address your letter to: J. A. Krug..... William A. Brophy..... Dr. Willard W. Beatty..... Newton Drury.....
- 15—The famous Goosenecks are in the: Gila river..... Little Colorado river..... San Juan river..... Rio Grande river.....
- 16—If you wanted to get more information about the Pitahaya you would ask the librarian for a book on: Reptiles..... Desert rodents..... Cacti..... Indian weapons.....
- 17—Los Alamos frequently appears in the current news in connection with: Discovery of oil..... Mining gold..... Rocket bomb tests..... Installation of a powerful new telescope.....
- 18—An Indian kiva was used mainly for: Ceremonial purposes..... Food storage..... Lookout against marauders..... Confinement of prisoners.....
- 19—If you wanted to take a photograph of New Mexico's famous Shiprock you would take the highway: South from Alamogordo..... West from Gallup..... North from Gallup..... East from Roswell.....
- 20—Havasu canyon is the dwelling place of the: Acoma Indians..... Supai Indians..... Ute Indians..... Papago Indians.....

NEVADA

Easy Money at Searchlight . . .

SEARCHLIGHT — This old mining camp has witnessed many gold booms—but preparations are now being made for a new kind of gold strike. Casino and gaming house owners from Las Vegas and other points having been taking leases on all available property and are renovating and equipping them for the sucker money expected to flow this way when employment reaches its peak at Davis dam.

Air School to Be Permanent . . .

LAS VEGAS—First class of trainees is expected to arrive soon for the permanent AAF school to be maintained at the army field near here. Two courses of 26 weeks each are to be given during the year, the army air command has announced.

Davis Dam Funds Assured . . .

SEARCHLIGHT—Senate and House conferees have agreed on an appropriation of \$7,500,000 for the continuance of work on Davis dam next year. The final amount was a compromise between the \$6,504,070 favored by the House and \$15,000,000 first approved by the Senate. The measure also carried \$15,500 for the Carson project, \$5,000 for Pyramid lake, and Western Shoshone county project \$27,500.

Newspaper Has 83rd Birthday . . .

AUSTIN—Believed to be the oldest newspaper of continuous issue in Nevada, the Reveille, published by William M. Thacher, recently celebrated its 83rd anniversary. The editor also was 83 this year.

Tahoe Village, newest Nevada community on the shore of Lake Tahoe opened its doors recently with a "throwing-away-the-key" ceremony.

A gem cutting school has been opened here by Ruth Mitchell, sister of the late Gen. Billy Mitchell. She is teaching ten young women who will later become instructors for partly disabled war veterans.

Ten years ago the Las Vegas chamber of commerce sent a desert tortoise named Ajax I to J. M. Cowan, director of the American Council of Learned Societies. Two years ago the reptile wandered off, and has never returned. So, Ajax II is now on its way to Washington, the gift of Toni Atwater, queen of the 1945 Helldorado.

George W. Malone, former state engineer and member of the Colorado river commission, has announced his candidacy for the Republican nomination for U. S. Senator from Nevada.

NEW MEXICO

To Observe Annual Indian Day . . .

GALLUP—The Senate has approved a measure establishing the fourth Saturday in September each year as "American Indian Day," to be observed with ceremonies as "a memorial to the aborigines of this nation and their contributions to the establishment and maintenance of the nation."

Much Talk in Washington . . .

GALLUP—"We did a hell of a lot of talking and they wrote it all down. They know what we need now, and I think something will be done." This was the report of Chee Dodge, veteran Navajo leader, on the recent trip which a delegation of Indians made to Washington to present the needs of the Southwestern tribesmen.

Drought Hits Game Fish . . .

SANTA FE—As a result of the prolonged drought in this area numerous mountain streams are reported to have dried up and large numbers of trout were lost, according to the report of State Game Warden Elliott S. Barker. Birds and wild game also are suffering from the shortage of water, it was stated.

FAMOUS OLD MINE NOW RECEIVES GUESTS

Rough it for a capsule vacation—Pack in by horseback—Sleep out—Eat out—Pan gold—Swim—Fish for trout—72 hours of outdoor pleasure at the Nobel Mine. \$75 covers all expenses.

For Reservations, write the . . . Pine Valley Stables, Pine Valley, Calif.

Hunger on the Reservation . . .

SANTA FE—Income of the Navajo nation which reached a gross of \$10,000,000 during the war, soon will decline to \$4,000,000 annually, according to a report made by James M. Stewart and George A. Boyce, director of Education in Indian Affairs. "There is only grass enough to support ten sheep per person. There is only one-half acre of irrigated land for each Indian. Only a few can live from weaving and silverwork. The grass, the farmland, the piñon crop, the crafts work and government jobs will yield about \$80 gross income annually to each tribesman."

In some of the cow towns of New Mexico the cowboys are said to have been forming lines to get their quota of nylons—nylon riatas, which are said to be much better than the old-style hemp rope.

The New Mexico State Medical society at its annual meeting elected Dr. C. A. Miller of Las Cruces as president for the coming year.

Carroll Dwire has been elected secretary of the Taos chamber of commerce for the coming year.

UTAH

Indians Prefer Movie Jobs . . .

KANAB—After having taken part as extras in the filming of "Smoky" and other pictures with a Southern Utah setting, the Navajo in this area liked their movie experience so well 65 of them have petitioned the 20th Century Fox studios to give them more work on the movie set.

Ora Bundy, former mayor of Ogden and president of the National Reclamation association, died early in June at Ogden hospital. At the time of his death he was chairman of the Utah committee on publicity and industrial development.



First Edition - 40 Woodcuts
DESERT RAT SCRAP BOOK
A Quarterly of
DESERT TALL TALES
HUMOR - PHILOSOPHY
WIT AND BANTER
10c a Copy - 50c a Year
HARRY OLIVER, Editor
Thousand Palms, Calif.

SCENIC GUIDES . . .

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



Tequa Moccasins
\$3.75 PREPAID
HANDCRAFTED FROM GENUINE DEERSKIN

These creamy colored wonderfully soft pelts make a chamois-like moccasin that you would not expect to find anywhere except on an Indian reservation. Men enjoy them as well as women.

We have a size for every foot. Small, medium, large, and extra large. The drawstring tie closes snugly around the ankle and makes gift ordering easy. And what a gift—real deerskin is a rare article!
IMMEDIATE DELIVERY

Gentlemen: Send immediately.....pairs of
TEGUA Moccasins. Size.....
I enclose \$.....
Name
Address



INSIST ON THIS . . .



HALLMARK OF GENUINENESS ON
NAVAJO AND PUEBLO SILVER

Only genuine Indian handmade silver Jewelry of good craftsmanship,
sound construction and ornamented with typical Navajo or
Pueblo designs bears this mark.



UNITED INDIAN TRADERS ASSOCIATION
INCORPORATED

ORGANIZED FOR THE PERPETUATION & PROTECTION
OF HANDMADE INDIAN ARTS AND CRAFTS
GALLUP, NEW MEXICO

For Nice Things . . .

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

CUSTER'S

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

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 jampacked 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.

Job for Aerial Cowboy . . .

VERNAL—An airplane will be used to round up between 75 and 100 wild horses which are eating grass and forage needed by cattle in the Uintah Basin, according to Reed Wilson of the U. S. grazing service. Flying low, the plane will herd the animals into the wings of a corral where they will be lassoed by horsemen. Wild and abandoned horses legally belong to the county. If branded animals are found among those captured they will be turned over to their owners.

Hugh Utah Project Proposed . . .

SALT LAKE CITY—A bill asking for a \$300,000,000 federal appropriation for the Central Utah project, of which the key unit will be Echo Park dam, has been introduced by Senator Abe Murdock. Second in size only to the Columbia river development, among western reclamation bureau projects, the Central Utah program is for the irrigation of lands, development of power, and control of flood waters.

Buffalo Herd Increasing . . .

MOAB—A herd of 23 buffalo—15 heifers and eight bulls—transplanted by the Utah game commission to area north-east of Henry mountains in 1942 and 1943, has increased to 37 animals, according to the report of David M. Gaufin.

• • •

The joint conference committee of the Senate and House finally approved \$1,-

345,040 for the Deer Creek project. The Senate originally had allowed \$4,602,000. Under the reduced appropriation hope of completing the project by 1949 appears remote.

ArchiBeks Drive In Cafe

Highway 99
 Just Outside of Beaumont, Calif.

Open from 10 a. m. to 2 a. m.
 Catering to the motoring public
 of the Southwest

Offering the Finest in Foods and Refreshments

WE WILL PAY . . .

\$5.00 EACH

for good copies of the first issue of Desert Magazine, dated November, 1937.

Complete Volumes for Sale

A very limited number of complete files, with the exception of Volume 1, are available in permanent loose-leaf binders, and will be shipped prepaid at the following rates:

Volume 1 (when available)	\$15.00
Volume 2	13.00
Volume 3	10.00
Volume 4	8.00
Volume 5	6.00
Volume 6	4.00
Volume 7	4.00
Volume 8	5.00
Complete set 8 volumes	60.00

The magazines in these volumes are not all new, but they are guaranteed to be complete copies in good condition.

LOOSE-LEAF BINDERS

—each holds 12 copies of Desert

It takes just a few seconds to insert your magazine in those handsome gold-embossed loose-leaf binders the Desert Magazine office sends well-packed and postpaid.

The binder opens flat, and at the end of each volume—the October issue—is a complete alphabetical index for finding any item that appeared during the year.

\$1.25

includes packing, postage and tax.

DESERT MAGAZINE
 El Centro, California



"Maybe ya shoulda took a look at this five acres before ya bought it . . ."

GEMS AND MINERALS

ARTHUR L. EATON, Editor

ORLIN BELL CHOSEN NEW FEDERATION PRESIDENT

Orlin J. Bell, Oakland attorney, member East Bay mineral society, was elected president of California federation of mineralogical societies by delegates from member groups at a luncheon meeting Saturday, June 15. Other officers elected were: Jack Streeter, Mineralogical Society of Southern California, vice-president; Dorothy Craig, president Southwest mineralogists, secretary; Modesto L. Leonardi, Santa Barbara, treasurer; Paul Van der Eike, Kern county mineral society, Bakersfield, editor Mineral notes and news.

The board acted to complete incorporation of the society with main office at Bakersfield. Action also was taken to create the separate office of editor of Mineral notes and news, the editor to be an ex-officio member of the board of directors for life or until removed by 2/3 vote of the directors. The offices of secretary-treasurer were separated, the treasurer to be bonded hereafter.

Desert gem society of Blythe, California, applied for admission to the federation and was accepted unanimously.

Dr. Woodhouse, retiring president, who had served during the war years, was given a rousing vote of thanks. During the long war interim a state federation meeting was impossible, so the difficult task of carrying on and holding the federation together had fallen on the able shoulders of Dr. Woodhouse and his assistants.

Convention was held in Glendale civic auditorium with Mineralogical Society of Southern California, Pasadena, host. Commercial exhibit space was a complete sell out and proved a happy hunting ground for visiting rockhounds who could exchange currency for beautiful or rare specimens. Displays by dealers of saws, drills, wheels and faceting heads in continuous operation, demonstrated procedure in rock cutting, lapidary work and jewelry craft. It is interesting to note that sterling chains, wire, sheet and findings are back on the market.

Societies exhibiting were furnished 6-foot show cases, individuals provided their own tables and lighting. Outstanding non-competitive displays were entered by Ernest Chapman, Willard Perkin and Mrs. Max Hirsch.

Motion pictures relating to mineralogy and geology were shown each convention day and proved popular—as well as affording a convenient resting spot.

A capacity crowd of 550 attended federation banquet Saturday evening at Los Angeles Breakfast club, when new officers were installed. Evening culminated in distribution of door prizes, a raffle and an auction conducted by Ralph Dietz and Harry Rhorer. Material, donated by dealers all over the country, put the federation on its feet financially.

Awards were made Saturday by the committee of judges, Dora Andersen, Sequoia mineral society, an expert in lapidary work for rehabilitation, Clemente Urrutia, professional gem cutter of Los Angeles, and Leon Owen, Glendale. Winners were:

Class 1—Society collections—minerals belonging to societies or society members—(at-

tractiveness 33 1/3%, variety 33 1/3%, quality 33 1/3%).

1—Southwest mineralogists, Los Angeles, 2—East Bay mineral society, Oakland, 3—San Fernando Valley mineral and gem society. Honorable mention—Kern county mineral society, Bakersfield, and Los Angeles mineralogical society.

Class 2—Minerals, all types.

1—Theodore Gish (age 14), member Mineralogical Society Southern California, 2—Lillie and Harry Rhorer, Pasadena, 3—J. R. Sherman, Wilmar. Honorable mention—W. A. Ross, San Diego.

Class 3—Crystals.

1—Earl and Clyde Olmstead, San Diego, Mesa Grande material.

Class 4—Cabochons and polished flats.

1—Walter Lauterback, Mojave Desert mineral and gem society, Barstow, 2—Mrs. Quita Ruff, Mineralogical Society Southern California, Pasadena, 3—Eddie Redenbach, Trona. Honorable mention—Mr. and Mrs. R. E. Heidrick.

Class 5—Faceted stones.

1—Burr N. Porter, Oakland.

Class 6—Novelties.

1—O. C. Barnes, Southwest mineralogists, set of onyx dishes and lamp. Honorable mention—Frank A. Bahr, petrified walnuts and butternuts.

Class 7—California minerals—No award.

Class 8—Los Angeles county minerals.

1—J. M. C. Johnson, Pasadena.

Class 9—Jewelry craft. Honorable mention—O. P. Avery, Mineralogical Society of Southern California.

Class 10—Education exhibit—no entries.

Class 11—Fluorescents.

1—Theodore Gish, Mineralogical Society of Southern California.

Class 12—Rare minerals and unusual localities. Honorable mention—W. A. Ross, Mineralogical Society of San Diego.

NEW MEXICO PROSPECTOR HAS FINE "AGATE CLAIM"

W. W. Wilkins, Box 203, Deming, New Mexico, writes that he has discovered and filed upon an "agate claim" near that city. He says, "I have red, blue, in fact almost all the colors of agate, together with plume, flower and moss agate, of as fine quality as one can imagine. I can dig down anywhere on the claim and find finest agate and jasper cutting material. I already have at home enough to last me indefinitely."

Wilkins is a gem prospector and collector of many years of experience, so when he becomes enthusiastic about a deposit of gem material it must really be interesting.

POMONA CLUB COLLECTS AT MINERALIZED CASCADE CANYON

Pomona Valley mineral club enjoyed its first field trip June 2 to Cascade canyon in the San Gabriel mountains. The area was described by George J. Bellemin, geology department, Claremont, at June 11 meeting held at the home of Mr. and Mrs. Hollis B. Page. Bellemin stated that Cascade canyon can be regarded as one of the unusual mineral localities of Southern California. Approximate elevation of mineralized area is between 4500 and 5000 feet. Geologically, the area consists of metamorphic rock intruded by some granitic masses. Principal stratified layers have an east-west strike and a north dip of about 60 degrees. Beds from north to south consist of quartzite, limestone followed by quartzite, limestone and gneiss. This series is correlated with some paleozoic limestone in the San Bernardino mountains. Mineralization of the area is probably in part due to the intrusion of the igneous mass.

At least 20 minerals can be collected in the Cascade canyon area, among them lapis lazuli, malacolite, corundum, hydrotroilite and phlogopite. Lapis lazuli occurs in the limestone in small bands from 1/8 inch to six inches wide, sometimes containing pyrite crystals. Corundum has not been found in the canyon proper, but good specimens have been obtained in San Antonio wash. Crystals are from 1/4 inch to one inch in length and are of a pinkish color.

Word has come from Petsamo district, north of the Arctic circle, that mining of nickel ore already has started. Prior to the war, Petsamo was a part of Finland, but was taken from the Finns at the end of the war. It is reported also that the Germans, before leaving the district, shipped out all ore to Germany, then destroyed all mining facilities.

NAVAJO INDIAN SILVERSMITHS . . .

We have expert Navajo silversmiths making jewelry to order. Rings, bracelets, pendants, brooches, earrings, etc. Have your cabochons mounted in custom designed coin silver mountings.

We also do commercial rock cutting of all kinds. Our stock includes both raw and finished picture petrified wood and turquoise cabochons, petrified wood slabs, Navajo and Zuni handmade jewelry, rugs and other Indian crafts.

Wholesale and retail.

Prices on request.

Member of

ART'S GEM SHOP

Main Office — West Y

Store No. 2 — East Y

Box 225

Gallup, New Mexico—THE INDIAN CAPITAL

UNITED INDIAN
TRADERS ASSOCIATION
INCORPORATED

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

GEM MART

ADVERTISING RATE
7c a Word — Minimum \$1.00

LARGE ASSORTMENT of good quality gem stones. Prices in the rough run from \$2.00 per pound up. Sawed slabs, assorted \$3.50 per pound up. One pound of slabs will cut dozens of excellent cabochons. Send for approval selection of beautiful cabochons. Custom silversmithing and lapidary work estimates on request. Sterling silver sheet and wire in small quantities. I purchase good quality gem stone in the rough. Correspondence invited. Satisfaction or money-back guarantee. Paul F. Fryer, Walpole St., Dover, Mass.

FOR SALE: Vreco Deluxe Cabochon outfit complete, hoods, wheels, felt buff, sander. Less motor \$25.00. 14 in. Diamond Saw with attachment for use as cut-off saw, mounted on metal table, \$45.00, less motor or blade. W. Pilkington, 1312 Prospect, San Gabriel, Calif.

PETRIFIED WOOD: Suitable for jewelry. Assorted selection one dollar pound. Mattie Vallette, Casa Grande, Ariz.

LET US do your silver repair work. Any sterling silver article can be repaired. Satisfaction guaranteed or your money back. Write for information. John O. Owen, Silversmith, Box 259, Mesilla Pk., New Mexico.

SPECIAL OFFER—Wonderlite Bulb and six fine fluorescent Franklin, N. J., minerals about 1" x 1½" \$4.10. Larger specimens 2" x 2" \$5.50 postpaid. Wonderlite Bulb and twelve highly fluorescent specimens from various eastern localities 2" x 2" \$8.60 postpaid. Wonderlite Bulb alone without specimens \$2.60 postpaid. H. Stillwell & Son, Rockville Centre, N. Y.

IF YOU WANT the best in "Herkimer Diamonds" quartz crystals from up-state New York, ask us for information and prices. H. Stillwell & Son, Rockville Centre, N. Y.

BARGAIN ASSORTMENT NO. 9—One slab gem sodolite from Canada, gem grade fine blue color, for polished slab or cabochons. One pound Mule canyon petrified palm. One slab Wyoming jade. One Azurite nodule, when cut or broken open, filled with lovely sparkling blue Azurite xls. One slab amazon stone, from Virginia, for polished slab or ring sets, fine green. One round smoky obsidian bomb. One slab mariposite, you will like this. One slab amazonite, from Colorado. One slab Azurite. And to make this the best value ever, one chunk or slab, gem rose quartz from Brazil. All for \$3.00 plus postage on 6 pounds. West Coast Mineral Co., Post Office Box 331, La Habra, California.

MINERAL SETS—24 Colorful Minerals (identified) in 1x1 compartments—Postage paid, \$3.50. Prospector's Set of 50 Minerals (identified) in 1x1 compartments in cloth reinforced sturdy cartons, Postage paid \$5.75. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, Calif.

CHOICE SPECIMENS that should be in your collection. Clear gemmy Apatite crystals 25c to 75c. Bright showy Wulfenite crystals 25c to \$5.00, both from Mexico. Brilliant Vanadinite crystals from Arizona 25c to \$2.00. Mail orders only. Gaskill, 400 No. Muscatel, San Gabriel, Calif.

TURQUOISE FOR SALE: Selected and common grades. Send card for particulars. W. S. Kettering, 1901 Lake Ave., Pueblo, Colo.

PETRIFIED PALM: Black and grey palm root with eyes, one dollar per pound. Large and small pieces from original location. You pay shipping charges. Maida Langley, P. O. Box 331, Needles, Calif.

ONE DOLLAR introductory offer includes colorful Nevada Opal, Chalcedony and 3 pseudomorphs of Limonite cube crystals after pyrite. 2 lbs. or more. Postage extra. Mrs. A. Avery, Box 482, Elko, Nevada.

SHATTUCKITE: Exclusive Arizona gem. Slabs—pure blue 50c sq. in. With red, white or green, 35c. Price includes taxes and postage. Gorham's Gem Shop, Box 645, Ajo, Ariz.

ARIZONA MOSS AGATE, rough, beautiful small to medium size pieces, 85c lb. Solid blue or pink banded agate, 50c lb. **POSTAGE EXTRA.** Also other Arizona specimens. MaryAnn Kasey, Box 230, Prescott, Ariz.

FORTY MINERALS and Fossils \$1.00. 100 fossils \$1.25. 100 larger fossils and minerals \$4.00 Bryant's Rockpile. Rt. 1, Alton Station, Kentucky.

ROCK COLLECTORS — ATTENTION! Send me your address and I will notify you, when in your city, with the Trailer Rock Store. The Rockologist (Chuckawalla Slim), 1152 So. 2nd Ave., Arcadia, Calif.

CUSTOM COLLECTING SERVICE: We have been pleasing our customers with this new service on agates. Let us know your preference in types, colors, and size of agate specimens, and we will obtain them for you if possible. New customers please send credit reference for approval selections. We are now on an extensive collecting trip into new localities and are obtaining a variety of choice agate. Frank Duncan and Daughter, Box 63, Terlingua, Texas.

BRAZILIAN AGATE SLABS—Beautiful dark Carnelian color with white bandings. Approximately ¼" thick. Write for approval selection, \$1.50 and up per slab. Slabs of many other types of agate in stock. A. L. Jarvis, Route 2, Box 350, Watsonville, Calif. Closed on Wednesdays.

MINERALS — GEMS — BOOKS — LAPIDARY EQUIPMENT—Drop us a postcard and we will place you on our mailing list. Get acquainted offer, 20 square inches slabbed gem material \$2.25 postpaid. **GRAFFHAM'S COMMERCIAL MUSEUM,** 421 Ash, Ottawa, Kansas.

NEW SHIPMENT Uruguayan Amethyst. Beautiful specimen material. Deep purple crystal groups. Sizes 1½x3 in. up to 3x4 in. Prices \$3.50 and up. Those who know buy our beautiful Mexican Onyx for book ends, paper weights and specimen material at 15c per pound in 100 lb. lots. Famous Hauser Bed Geodes—endless variety. 25c apiece and up. Postage not included. We carry Highland Park Lapidary Equipment and The Carborundum Company's diamond saws, wheels and supplies. **GEMARTS COMPANY,** 4282 Marlborough, San Diego 5, Calif. "Everything for the Amateur Lapidary."

SPECIMEN CRYSTALS: Crystallized orpiment with gold, 25c to 75c. Neptunite on natrolite, 25c. Topaz, 25c. Golden beryl, 50c. Brazilianite sections, 50c. **THOMPSON'S STUDIO,** 385 West Second Street, Pomona, Calif.

SOMETHING NEW—Exclusive. Hand Made stainless steel jewelry. Have your stones mounted in this beautiful, durable, non-tarnishing metal. Your design or ours. We will cut your stone either cabochon or faceted, or supply complete, mounted stones. No blank mountings for sale. T. E. Beckett, 4714 Lotus St., San Diego 7, Calif.

BEAUTIFUL PANHANDLE Flint, Amarillo Stone, several colors, stripes and figures. Assorted. Finest cutting. Finishes like agate. Found on an old Indian camp ground. One dollar per pound. Joe H. Green, Box 666, Hereford, Texas.

\$2.50 brings you prepaid six rare and beautiful crystallized Arizona minerals. Vanadinite, Diopside, Wulfenite, Willemite, Chrysocolla, Azurite. Specimens 1½x2 or larger. Wiener Mineral Co., Box 509, Tucson, Arizona.

MONTANA MOSS AGATES in the rough for gem cutting, \$1.00 per lb. plus postage. Elliott's Gem Shop, 26 Jergins Arcade, Long Beach 2, California.

MINERALS, GEMS, COINS, Bills, Old Glass, Books, Stamps, Fossils, Buttons, Dolls, Weapons, Miniatures, Indian Silver Rings and Bracelets. Also Mexican. Catalogue 5c. Cowboy Lemley, Las Cruces, New Mexico.

INDIAN RELICS, Curios, Coins, Minerals, Books, Old Buttons, Old Glass, Old West Photos, Weapons, Catalogue 5c. Lemley Antique Store, Osborne, Kansas.

WANTED: TO BUY, sell and exchange specimens outstandingly rare and beautiful. Sam Parker, 2160 East Van Buren, Phoenix, Ariz.

BARGAIN BUNDLES—Assorted rough cutting material—Agates, Jasper, Geodes, Variscite, Turquoise, Chrysocolla, Petrified Wood, Obsidian, etc., 5 lbs. \$3.50, 10 lbs. \$6.00, 20 lbs. \$10.00. Assorted sawed cutting material—20 sq. in. \$3.50, 50 sq. in. \$7.00, 100 sq. in. \$12.00. Agate, Jasper, Chrysocolla, Variscite, Turquoise, Wood, Rhodonite, Obsidian, Opal, etc. Please include postage. Send for price list of cutting material, minerals, specimens, jewelry, etc. John L. James, Tonopah, Nevada.

FLUORSPAR CLEAVAGE OCTAHEDRONS: Very attractive various shades of purple, yellow, green, colorless, etc., many fluorescent. Half dozen ½" to 1½" tip to tip \$1.60 postpaid. One dozen special selection 1" to 1½" \$3.50 postpaid. H. Stillwell & Son, Rockville Centre, N. Y.

FLUORESCENT CALCITE fossil slabs from Texas. In rough or polished, Llanoite (opaline granite) in rough only. Beautiful polished paperweights of assorted minerals. Sent on approval, prices on request. Clay Ledbetter, 2126 McKenzie Ave., Waco, Texas.

MONTANA MOSS Agates in rough for gem cutting, direct from diggings, \$1.00 per pound, prepaid. Nels Christofferson, Richey, Montana.

CHOICE COLORFUL collection of gem stones, fossils, minerals, crystals. 20 labeled cabinet specimens—large \$3.00, smaller \$2.00. Agate chips, banded, polka dot and lace \$1.00 per pound, prepaid. Mrs. Harold Tillinghast, Rt. 1, Hotchkiss, Colorado.

"OKLAHOMA" RED BARITE "Roses." Nature's own formation of intricate petals of rose, all sizes, ½ inch to 8 inches across. Superb cabinet specimens. \$1.00 per pound plus postage. J. B. Lankford, 1137 S. W. 38th St., Oklahoma City, Okla.

100 GOOD GRADE ancient Indian arrowheads \$4.00, 1000 \$30.00. Tomahawk, hoe, discoidal, axe and 20 arrowheads \$5.00. Large flint knife, large spearhead, game ball, celt and 20 stemmed scrapers \$5.00. 100 blemished spearheads \$10.00. 100 fine arrowheads \$10.00, 100 slightly blemished stemmed scrapers \$4.00. 100 beautiful sea shells \$10.00. List free. Lears, Box 569, Galveston, Texas.

FRANKLIN, N. J., COLLECTION: 10 excellent specimens, several highly fluorescent about 2" x 2" \$4.00 postpaid. H. Stillwell & Son, Rockville Centre, N. Y.

"C. EARL NAPIER — For Rock." Historic Knights Ferry, California. Fireplace mantles, sawing, polishing, moss opal. Correspondence or visit invited.

GILDE GEM CUTTER. We now offer this compact portable outfit to the home cutter. Write for details and new catalog listing over one hundred varieties of rough. Also all kinds of supplies. Gem Exchange, Bayfield, Colo.

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. 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.

MINERALITE: For best Ultra-Violet fluorescence. Every rockhound should have one. Every prospector of minerals needs one. Send today for free catalog with natural color illustrations and valuable information. Gaskill, 400 North Muscatel, San Gabriel, Calif.

AMONG THE ROCK HUNTERS

Field trips for 1946 scheduled by Minnesota mineral club are: May 12—Stillwater area (agates, trilobites); June 9—Little Falls and vicinity, the Darling esker, Royalton for staurolites; July 14—Pine City and environs; August 11—Wisconsin side of the St. Croix, several fine collections and Crystal cave.

Melvin Levet, geologist affiliated with Lane Wells corporation, talked on electro-logging modern methods of mapping sub-surface data, at June 20 dinner meeting of Los Angeles mineralogical society.

Sequoia mineral society began outdoor summer meetings June 8 with a picnic in Pine Tree Grove, Roeding park, Fresno.

Texas mineral society, Dallas, elected the following officers at June meeting: J. D. Churchill, president; Asa Anderson, vice-president; Wm. H. LaDew, secretary-treasurer. Group held round table discussion of specimens brought by members. Fluorescent specimens were shown and discussed. Staff photographer of Baker hotel made pictures of members present.

Monthly programs of Santa Barbara mineral society cover birthstones. Wesley Savage of Gilchrist and company discussed emeralds at May meeting, showing how to distinguish Russian emeralds from those found in Colombia.

Marquette geologists, Chicago, Illinois, realized \$63 from May auction and raffle. Dr. Ball was scheduled to conclude his current series of talks on geology at June meeting. He has suggested a course of study of the Illinois and Chicago region for the group to follow. James O. Montague of Wisconsin geological society was to be guest speaker. He was to talk on illurian fossils of the Wisconsin region and illustrate his talk with fossils from his collection.

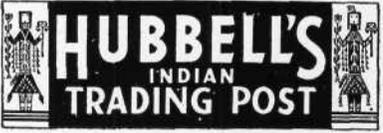
East Bay mineral society held its first overnight field trip May 11 to Knoxville mine, led by president R. O. Deidrick. The group visited the Robert Louis Stevenson monument on Mt. St. Helena, erected in honor of Stevenson and his bride who honeymooned there. An interesting fact is that an East Bay member, Earl Douglass, carved and polished the monument 20 years ago. Enroute to Knoxville mine the field trippers collected dolomite and aragonite near Middletown, pectolite in a road cut, Lake county diamonds near Hobart Springs. Knoxville mine yielded cinnabar and iron sulphates; Manhattan mine, banded onyx. Seventeen cars made the overnight trip; six more led by Jasper Joe Thomasberger joined them Sunday morning.

O. A. Morrison, Lynde air products company, explained to members of Sacramento mineral society at May meeting the manufacture of synthetic ruby, sapphire and spinel. These synthetic gems meet chemically and physically all requirements of genuine stones. Wartime demand for jewel bearings for airplane controls and other mechanisms increased production of these stones, but wartime need was so great that only recently have they been considered for use as cut gems. Colored motion pictures by U. S. forest service showing close and unusual views of wild life added enjoyment to the evening.

Mineralogical Society of Southern California omitted annual picnic or dinner due to the California federation convention to which the Pasadena group was host. At June meeting H. Staunton Hill was scheduled to present colored pictures of Yosemite taken during recent field trip of Pasadena junior college. Collecting area to be discussed was Clark mining district.

Scheduled program for June 10 meeting of Kern county mineral society was a talk on old trails in vicinity of Bakersfield by Mr. Lotta. Opal mountain and Horse canyon field trips proved successful. The society was invited to Randsburg June 2. July and August meetings are to be picnics.

Edythe M. Thompson, 385 W. 2nd street, Pomona, California, has been appointed publicity chairman for Pomona Valley mineral club.



HUBBELL'S
INDIAN
TRADING POST

NAVAJO INDIAN RUGS & JEWELRY
Tom S. Hubbell, 2331 Pico Blvd.
Santa Monica, California



3-WAY FUSION BOND

MAKES BEVIL A FASTER CUTTING
LONGER LASTING

LAPIDARY CUT-OFF WHEEL

In the Bevil Diamond-Impregnated Cut-Off Wheel, the cutting rim and body of blade are *flowed* together. This produces a *fusion* bond instead of the usual *physical* bond. The result is a cut-off wheel that cuts *much* faster, and lasts *many* times longer than the average diamond-impregnated cut-off wheel. Cuts all non-metallic materials of dense, brittle structure. Write for Bulletin No. 4, stating your cutting requirements.

TYPE "T" 6" — **\$6.50** 8" — **\$9**
TYPE "R": 6" — \$19.00; 8" — \$24.00;
10" — \$32.00; 12" — \$38.50; 14" — \$45.00.

Cryco, Inc. 815 Fremont Ave.
South Pasadena, Calif.
Sales Division of BEVIL CO., Los Angeles. Manufacturers of BEVIL Diamond Abrasive Cutting Tools



HERE ARE THE GIFTS YOU'VE BEEN LOOKING FOR!

Petrified Wood, Moss Agate, Chrysocolla,
Turquoise, Jade and Jasper Jewelry

HAND MADE IN STERLING SILVER

Bracelets, Rings, Necklaces, Earrings
and Brooches

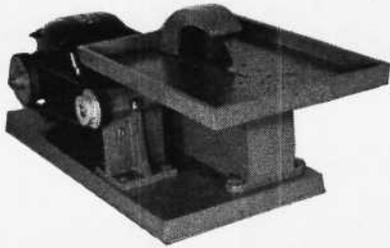
SPECIALLY SELECTED STONES WITH
CHOICE COLORS AND PICTURES

Write for Folder with Prices
Wholesale and Retail

ELLIOTT'S GEM SHOP

26 Jergins Arcade Long Beach 2, Calif.
Entrance Subway at Ocean and Pine
Open 10 A. M. to 10 P. M. Daily

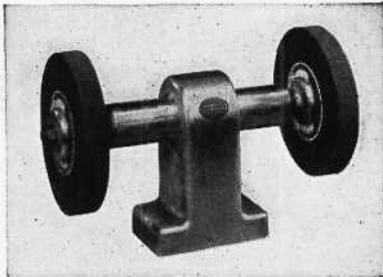
Did you know that hematite, the "hardest of iron ores," varies in hardness from 6.5 (almost as hard as quartz), down to "natural rouge," a variety so soft that it smudges the fingers without the slightest sign of scratch?



6" HIGH-SPEED TRIMMING SAW. All cast metal. No wood. This saw saves time and material. Saw operates at 2000 R.P.M. Priced at \$47.50 without motor, F.O.B., Los Angeles, Calif. This price includes saw-blade, belt and pulley to give you the correct speed. Requires 1/4-horse motor. Shipping weight approximately 60 pounds.

Highland Park Lapidary Supply
1009 Mission St., South Pasadena, Calif.

1946 VICTORY CATALOG NOW AVAILABLE



As it costs 40c to produce one of these 72 page illustrated catalogs, we are asking you to send 20c in coin or stamps for your copy. It contains a listing of—

**LAPIDARY EQUIPMENT AND SUPPLIES
SILVER IN ALL FORMS
JEWELRY FINDINGS
BROOCH, PENDANT, AND RING
MOUNTINGS
ROUGH, PREFORMED, AND
POLISHED GEMS
FLUORESCENT LAMPS AND
MINERALS
BOOKS, MAGNIFIERS, ETC.**

DO YOU WANT THE BEST DIAMOND SAW BLADE MANUFACTURED? Stop in and let us show you the radically **NEW NORTON SLOTTED RIM DIAMOND BLADES.** They cut faster and last longer than any other diamond blade on the market.

6".....\$7.20 8".....\$9.60 10".....\$12.00
12".....\$14.40 14".....\$20.40

Postage or Express Extra

WE HAVE MOVED — VISIT OUR NEW SHOP — NEW FOREIGN SHIPMENTS NOW ARRIVING.

GRIEGER'S

1633 E. Walnut Street
PASADENA 4, CALIFORNIA

This is the same firm that formerly advertised as Warner and Grieger.

Several reports have come in that the gem rhodonite deposit west of Jacumba, California, has been completely worked out. But this seems not to be the case. Four or five members of Imperial lapidary guild, El Centro, came back from a recent trip with from 200 to 300 pounds of good material each. Some of this, while of good color, has proved difficult to polish properly. But, on the other hand, some when carefully sawed, produces "picture" cabochons and flats, similar to Arizona wood in red and black.

J. E. Churchill, formerly with U. S. navy, gave a talk at June meeting of Yavapai gem and mineral society, Prescott, Arizona, on theory and operation of radar. He called quartz crystals the "watch dogs" that controlled wave lengths and kept transmitters exactly on the right track. Radar, it was stated, would have been impossible without quartz crystals.

Orange Belt mineralogical society began summer sessions with a covered dish luncheon in Pinetum, Sylvan park, Redlands, California, June 2. Paul Walker, Beaumont, publisher of Trade Winds, was guest speaker. Mrs. D. H. Clark, president of the group, donated some cut and uncut specimens for the drawing.

June Sequoia bulletin carries a brief history of Parlier lapidary class established 1936—so far as is known, the first adult evening school course in lapidary work in the state. At first all equipment had to be contrived by members as there were no commercially built machines available. Silver craft was a natural outgrowth of the lapidary work. The work was continued all during wartime despite handicaps, and today there are 50 names on the class roll.

Leland Quick, writer of Amateur Gem Cuts, spoke on subject of Rediscovery of a Lost Art at July 2 meeting of San Jose Lapidary society.

Rockhound Record, bulletin of Mineralogical Society of Arizona, states that metallurgists of 17th and 18th centuries experienced such great difficulties with an unidentified metal that it was dubbed "Old Nick's metal," hence our word "nickel." The Chinese worked it and called it "paktong" but would not divulge the secret of its origin. It was finally identified by a Swedish scientist.

This gem is from Rock Rustler's News, volume 1, number 1, official bulletin of Minnesota mineral club, Minneapolis, Minnesota, May, 1946:

I wouldn't want to be a rock,
I wouldn't, no, not me,
Some rockhound just might pick me up
And then look where I'd be!
He'd cut me up, and grind me down,
And put me in a case.
And there I'd have to sit and sit,
Not going any place.
I wouldn't want to be a rock,
I wouldn't, no, not me;
I'd rather be a rockhound, cause
There's so much left to see.

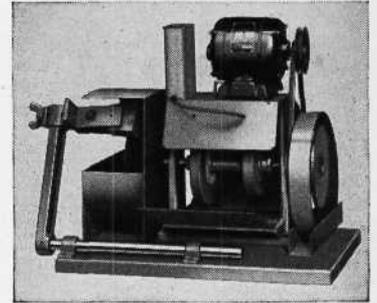
GEM BERYL VARIETIES

Gem beryl appears in the trade under many names. These usually depend on color.

Rich green is known as emerald; pale green, noble beryl; pale blue, aquamarine; blue green, aquamarine; yellow green, aquamarine chrysolite; yellow, beryl; golden yellow, golden beryl; golden yellow, golden emerald; pink, morganite.

Thomas Scanlon has an article on lapidary of China in June Marquette bulletin. Age old methods are still used—no motor driven saws or laps. Final polishing of the jade is done by small wheels made from the soft wood of gourds. Highest gloss is achieved with the aid of yellow earth, found in China, and lastly with a mixture of wax and gum.

COMPLETE LAPIDARY SHOP ... in one small unit



RX LAPIDARY MACHINE simultaneously operates either 12" mud or diamond saw, both coarse and fine abrasive wheels, and choice of 6" or 8" cast iron laps, cloth covered wheel or leather polisher. Polishers and laps interchangeable in seconds. Nothing more required for cutting, shaping and polishing all rocks, minerals, gemstones. Ask for Bulletin 146-B.

RX FACETING MACHINES also available.

RX LABORATORY
W. A. FELKER
1143 Post Ave., Torrance, Calif.

BEAUTIFUL BANDED CALCITE— ONE LARGE SPECIMEN, \$1.00

Write for price list on other materials, specimens, etc.

JACK THE ROCKHOUND
P. O. Box 86 Carbondale, Colo.

MINERAL BUSINESS . . .

Fine Collection Crystals, Ores, Fluorescents,
Bulk and Rare Items, Show Cases
RETAIL INVENTORY STOCK \$3000
Business—Stock—Cases—\$1200

L. K. KNAPP
2249 Montrose Ave. Montrose, Calif.

BLACK ONYX . . .

FINEST QUALITY AND POLISH

In lots of one dozen to 1000 and up.
Same in men's 14K Gold Rings,
\$180 per dozen.

Fancy cuts per order of 2000 stones each size.
Synthetic Rubies, 10x8, Cabochons, oval
and blue Spinels.

Tiger Eye and fine Amethyst Cabochons,
10x8, 14x12 in lots.

Finest Belgian Congo Diamond Bortz,
\$190 per 100 carats.

Ring Mountings, 14K and setting of your
stones in 100 lots.

Also single stones for collectors on approval,
such as Andalusite, Emerald, Zircon and
many others.

ERNEST MEIER

Church Street Annex Post Office Box 302
NEW YORK 8, N. Y.

Covington LAPIDARY EQUIPMENT



16-inch
LAP UNIT

14-inch
Power
Feed
DIAMOND
SAW

Send for
Literature to

Covington Lapidary
Engineering Co.
Redlands, Cal.

Lapidary Equipment . . .

New Belt Type Sander	\$19.50
Ball Bearing Arbor	\$22.50
New Geared Flat Lap Unit (Ball Bearing)	\$28.50

Write for Literature

J. J. JEWELCRAFT

P. O. Box 446

MONTROSE, CALIFORNIA

Books, Gems, Mineral Sets, Equipment

TURQUOISE & CHRYSOCOLLA JEWELRY

(Wholesale Exclusively)

HAROLD D. MARYOTT

40 Oak St. Rt. 1

Miami, Arizona

MINIATURE SETS, Asst'd per doz.	\$6.00
50 RING STONES, including genuine and synthetic	\$7.50
SYNTHETIC RUBIES or GENUINE GAR- NETS, per carat	\$1.25
CAMEOS or OPALS—Genuine—12 for	\$3.75
100 JEWELRY STONES removed from rings, etc., \$2.40; 50 large ones	\$2.40
12 ARTICLES ANTIQUE JEWELRY, rings, pins, etc.	\$3.00
500 COSTUME JEWELRY STONES	\$2.00

B. LOWE, Holland Bldg., St. Louis 1, Mo.

HEIRLOOMS OF THE FUTURE . . .

Marvin's fine handcrafted sterling
silver jewelry.

MARVIN'S ROCK SHOP

U. S. Hiways 160 & 550, Durango, Colo.
Visitors Always Welcome

SAGENITE— Colorful Desert Gem Material

Small slabs ready to grind. Fine for cabo-
chons—Pendants—Bracelet Sets.

Only 35c each or 12 selected slabs
different colors for \$3.50
Larger slabs 50c per sq. inch

CHRYSOCOLLA—Gem Material

Material that is getting scarce. Small slabs
at same prices as Sagenite.

Satisfaction Guaranteed—Postage Extra

Send for list of showy specimens at
moderate prices.

JACK FROST

59 E. Hoffer Street Banning, California

Cogitations . . .

Of a Rockhound

By LOUISE EATON

Queer, isn't it, how everyboddy, evn rockhouns, has sum pet hobby—'r peeve—whitch he rides whenever oppertunity half-way offers! It makes no matter whether the faverite topic is how sum wurd should be used 'r pr'nounced, 'r the idea that mud saws is better'n dimund wuns—each fella sticks to his guns to the end. And then is ready to begin the discussion all over again with the nex lisener.

Folkes what has bin rockhouns for years is glad that younger an' mor active rockhouns is steppin in to take their places an' carry on the intrestin an' healthful hobby. When old line rockhouns sees each uthor after a space uv four 'r five years they realizes that flesh is weaker than spirit, an' they rejoices that all over the country young folkses is joinin rock-minded groups.

REPORT FALL OF METEORITE SEEN IN PHILIPPINES

It is seldom that any man has the chance to see meteorites or shooting stars fall to earth and then actually recover bits of the same before they cool off. Astronomers are examining the story of H. J. Detrick, just reported after more than eight years.

Detrick, who is a college graduate, witnessed the fall at Patnar, Lanao, in the Philippines, of a group of meteorites, gathered several specimens, and talked with many of the natives who were on the spot, some of whom really believed that the end of the world was at hand.

At 8:45 a. m., June 16, 1938, a great ball of fire flashed across the sky, throwing off clouds of smoke and sounding like the roar of a group of airplanes. As it reached a point almost overhead it suddenly exploded with such violence that doors and windows rattled and shook for some distance around. There was an instant burst of flame like lightning and a dense cloud of smoke for more than half an hour.

The Moros reported that fiery objects with tails appeared out of the cloud and headed toward the earth. There followed a rain of small bits of metal that made the sheet iron roofs of the town rattle like a severe hailstorm.

HE GAVE ME A ROCK

By CHAS. G. SCHWEITZER
Los Angeles, California

He gave me a rock; it was dirty and rough,
Small promise of beauty or worth.
"I think you will find it a beautiful stone,
Though it looks like a piece of plain earth."

I took it and cut it and polished it well,
More beauty each moment revealed;
At last it was finished, and there was displayed
The splendor its rough coat concealed.

I thought of the donor: some say he is crude,
His language at times a bit rough;
But if I need help, I know where I'll turn
And be sure to get more than enough.

He often is careless of necktie and hat,
And seldom wears clothes that are new;
But under it there, 'neath the roughness and all
Beats a heart that is kindly and true.

Western Jewelry CREATED By N A J O CRAFTSMEN

Ingeniously designed—by
Master Indian Silversmiths
Your cabochons mounted in handmade silver
Bracelets, Brooches, Pendants and Earrings.

We will make to order Scatter Pins,
Watchbands, Buckle Sets, Etc.

Prices on Application

In our Western Jewelry we offer you only
the finest of Turquoise, Jaspers and
Picture Wood.



Glover Bldg.

Kansas City 6, Mo.



DUE TO POOR HEALTH

I have sold my Rock, Mineral and Gem Business, located 5 miles S. W. of Barstow, on Highway 66. The new owners are Clifford H. Roehr, of Los Angeles, and John H. Martin, of San Diego, California. The co-partners' business will be known as the RO-MART GEM AND MINING CO. They will enlarge the stock, and will be in shape to handle all kinds of orders. I will continue to make my home here, but will spend most of my time in the hills.

Clarence H. Dillon

Special This Month--

ASSORTED AGATES, JASPERS,
WOODS—OBSIDIAN

Mixed Cabochon and Specimen Slabs
10c sq. in.—100 in. \$9.00

Oregon Thundereggs "Blue Bed," 30c lb.
50 lb. lots 25c lb.—100 lb. lots 20c lb.

Horse Canyon Moss Agate 75c lb.

"MADE RITE" Arbors for sander, saw or buf-
fer, ball bearing 3/4 in. shaft, 5/8 in. spindle,
\$8.00. Chrome Steel Housing, Durrell mount-
ing blocks.

Include Postage and Sales Tax on Above

Write for folder on 8 in. fast smooth cutting
Trimming Saws, 2 models, 3/4 ballbearing
shaft. Reasonable prices. Demonstration
Models in stock.

CUSTOM SAWING AND POLISHING
CABOCHONS MADE TO ORDER

Open daily 8 a. m. to 9 p. m.
Sundays 1 p. m. to 9 p. m.

ABERCROMBIE'S AGATE SHOP
335 South Lakewood Blvd.
BELLFLOWER, CALIF.

MONTANA AGATE . . .

Sawed slices in packages \$5.00 per package. Sawed slices mixed gem materials \$5.00 per package. No culls in these packages. Montana Agate, rough, good cutting material, \$1.00 to \$2.00 per pound. Montana Agate, fine to choice, \$3.00 to \$10.00 per pound. Rough Montana Sapphires, mixed pale colors, choice gem but not large, cut about half carat, each 50c. Finished Montana Agate cabochons \$1.00 and up. Precision facet cutting. All work and materials guaranteed or money refunded.

FLATHEAD HOBBY MUSEUM
Highway 93 Rollins, Montana

Before you buy any lapidary equipment—

Send for our
NEW CATALOG

THE NEW COMPACT 3V LAPIDARY UNIT

it does everything!

SAWING • POLISHING
LAPPING • FACETING
SANDING • GRINDING
SPHERE CUTTING

• THE LATEST in lapidary equipment, with many exclusive features found in no other machines. More than 1000 in use. Price includes diamond saw, grinding wheels, sanding wheels, polishing buff and everything necessary to make cabochons and specimens up to capacity of the 8" saw. Saws up to 10" can be used on this machine.



AVAILABLE WITHOUT PRIORITY



FACETING ATTACHMENT

• A FINE precision tool that greatly simplifies the cutting of any faceted gem. Can be used with any horizontal lap thru the use of a simple adaptor socket.

New Model H-16V DIAMOND SAW UNIT

• HANDLES from a 10" to 16" blade. Safe clamp hold quickly adjusted to any size stone. Cross feed permits several parallel cuts without reclamping stone. Internal Pressure grease lubrication . . . adjustable oil sump. Splash proof, yet work is visible at all times.



PRICES

	NEW	YOUR BLADE RECHARGED
7"	\$4.75	\$4.00
8"	5.75	4.75
10"	7.85	6.85
12"	9.50	8.25
14"	11.75	10.00
16"	13.50	11.50

WE PAY POSTAGE

ORDER TODAY FROM

Lapidary
EQUIPMENT COMPANY, INC.

2020 WESTLAKE SEATTLE 1, WASH.

Imperial Lapidary Guild will hold regular meetings, first and third Fridays, throughout the summer at their new meeting place, El Centro chamber of commerce building.

Selma high school lapidary class, it is planned, will continue meetings during the summer. Sessions are held on Monday and Wednesday evenings, 7:30 to 10:00 p. m.

President Russell Grube of San Jose Lapidary society, in reporting on the federation convention in Glendale, said the widest variation in lapidary equipment display appeared to be in the facet equipment, some of which were so complicated it would take a graduate engineer to operate them; others were so simple that "even your secretary could do a fair job of faceting a stone. \$17.50 to \$150.00 was the price range—the \$17.50 machine was supposed to do everything that the \$150.00 machine could—yet it all summed up to the fact that the best job could be done if the operator had the patience to do the work."

Mineralogical Society of Utah took a field trip to the Wildcat mountains during May in quest of fluorite.

Mineral Notes and News, federation publication, announces that Harry Fouks, of Stockton, owner of Rainbow Ridge Opal mine, Nevada, has closed the mine to the public and opal will be for sale by Carl Bangle of Bakersfield, California.

T. V. Little of Shafter, at a recent meeting, entertained Kern County mineral society with a demonstration of how minerals are identified with aid of spectroscopy.

SEEK METEORITE ORIGIN BY STUDY OF STRUCTURE

S. H. Perry and E. P. Henderson of the U. S. national museum claim that the internal structure of iron meteorites may give a clue to the past history of these visitors from outer space. Iron meteorites are much easier to identify than stone ones from their content, therefore both museums and private collectors have many more of the metallic ones on exhibit. These metallic visitors are mostly iron with small quantities of nickel, cobalt and phosphorus.

Intensive studies have shown that, while many meteorites are the same in chemical composition, they differ widely in internal structure. This is taken as an indication that these bodies have had a very different past history. High temperature and length of exposure are responsible for these changes. It is the hope of the two scientists that a long and careful study of meteorites may make it possible to tell their origin and history from a painstaking examination of their interiors.

DESERT QUIZ ANSWERS

Questions are on page 28

- 1—Greasewood. 2—Borax. 3—Steel.
- 4—Above Parker dam. 5—Pahutes.
- 6—Sheep raising. 7—Quartz.
- 8—Breyfogle is name of a Lost Mine.
- 9—White. 10—Roosevelt dam.
- 11—Douglass. 12—White Mt. area.
- 13—East, toward the rising sun.
- 14—William A. Brophy.
- 15—San Juan river. 16—Cacti.
- 17—Atomic bomb research.
- 18—Ceremonial purposes.
- 19—North from Gallup.
- 20—Supai Indians.

LITHIUM COMPOUNDS

The American society of mechanical engineers reports several compounds of lithium, lightest of all known elements, now available for use in industry. Lithium weighs half as much as water, and although it is a metal, solid pieces float easily.

Uranium, heaviest of the elements, has been playing an important part in atomic investigations. It is possible that lithium may have a prominent role in the nuclear physics of the coming age.

Dr. Hans Osborg of the Lithalloys corporation has described three new lithium compounds. These include lithium peroxide, a solid compound of high stability which provides about 35 per cent free oxygen in the laboratory; lithium boro-hydride, which will form 66 cubic feet of hydrogen per pound from water; and diborane, which is a gas at normal temperature, but which frees 78 cubic feet of hydrogen per pound from water.

Mojave Desert Gem and Mineral Shop . . .

On Highway 91, 11 Mi. East of Barstow
One Mile West of Yermo, Calif.
E. W. SHAW, P. O. Box 363, Yermo, Calif.

Revised Lapidary Handbook

By J. HARRY HOWARD

This book is a successor to the author's **HANDBOOK FOR THE AMATEUR LAPIDARY.**

- It is completely re-written.
- It is much enlarged—225 pages.
- It has about 70 illustrations.
- It describes modern techniques.
- It has much new material never published before.
- Excellent cloth binding.
- Good index.

PRICE \$3.00 POSTPAID
PUBLISHED MAY 1

Order from your book store, or your lapidary supply dealer, or this magazine, or the author.

J. HARRY HOWARD
504 Crescent Ave. Greenville, S. C.



MINERALIGHT DETECTS URANIUM

"The available methods for detecting uranium lacked one or more of the desired characteristics. Eventually, however, a method was worked out that is probably more specific and sensitive than the usual qualitative methods for uranium. Since uranium is most susceptible to short-wave ultra-violet light, the lamp used in this work was the MINERALIGHT V-41 . . . which emits short-wave ultra-violet rays at 2,537 Angstrom units."

INFORMATION CIRCULAR 7357
U. S. DEPARTMENT OF THE INTERIOR
Copies of the full report, "Fluorescence Test for Uranium," are available from the Bureau of Mines, Office of Mineral Reports, Washington, D. C.

Miners and Prospectors

INSTANTLY IDENTIFY URANIUM MERCURY SCHEELITE WILLEMITE

and other valuable ores with MINERALIGHT
Find Hidden Values.

FREE A four-color MINERALIGHT Catalogue . . . WRITE DEPT. T TODAY!

ULTRA-VIOLET PRODUCTS, INC.

3205 Santa Monica Blvd. • Los Angeles, California, U.S.A.

AMATEUR GEM CUTTER

By LELANDE QUICK

Before this copy appears I expect to receive several letters from mineralogical societies calling my attention to the fact that their names did not appear in the list of gem and lapidary societies published last month. They will tell me that they give a generous part of their programs to lapidary technique, etc. I am well aware that practically all amateur mineralogical societies do give a large part of their activities today to gem cutting but I published a list only of those societies who indicate that interest by inclusion of the word gem or a synonym in their titles, with one exception. The Snohomish County Mineral Society at Everett, Washington, conducts a yearly course in lapidary instruction for the public, which is a laudable program.

This was no attempt to draw a fine line between a lapidary organization and a mineral "collecting" association for the two go together like ham and eggs. I wanted to see how many societies had been organized since 1940 that emphasized gem cutting in addition to mineral study and collecting. A list of all mineral groups that pursue gem grinding without mentioning it in their titles would fill many pages in this magazine and I intended them no slight.

My list emphasizes the great change in attitude that has occurred with mineral collectors in the past ten years. It still is so recent that it easily is remembered how frankly contemptuous many mineralogists were when I helped organize the first lapidary society. They tossed disparaging remarks about "crystal smashers" and "pebble polishers" and even the dealers were quietly noncommittal and skeptical as they became busier selling material, not for cabinets but for cutting. Among the many pages of advertisements in mineral publications today one needs to look diligently to find an ad offering only cabinet mineral specimens to collectors.

I have said before that one doesn't need to know a thing about minerals to be a good lapidary but inevitably knowledge of and interest in minerals leads every gem cutter to be an amateur mineralogist and I have yet to see one who does not eventually have in his collection some uncut specimens which he prizes. On the other hand every mineral collector gets more joy from his hobby if he eventually processes some of his material into deathless things of beauty. I can find a thousand arguments for persons who maintain that "you can't improve on nature." We've been doing it since man invented the first crude comb to get the tangles out of his matted hair.

Buried as an easily escaped item in the pages of the Los Angeles Daily News, April 17, was this thought provoking squib. "There are some 10,000,000 semi-precious stone hunters in the United States, most of them amateurs." I don't know where the editor got that information but it probably was from a reliable source. Perhaps it was a misprint and the figure should have been 1,000,000 which still would indicate that one person out of every 140 in America is collecting gem materials. In any event, I am sure that the item meant that there is an enormous number of mineral collectors rather than strictly amateur lapidaries. If the figure is correct, it would mean that one person in 14 is collecting minerals and I find it difficult to believe that more people collect minerals than collect

postage stamps in America where almost everyone collects something from buttons to diamonds. How many people do you know who do not collect anything at all in this country, where the acquisitive instinct is more highly developed than anywhere else in the world?

We are blessed indeed that we cannot look too far into the future with some of its terrors, but I believe we would be more blessed if we could look into the past a little more clearly. I am sure we would see that man prized among his first possessions, when he stopped being a nomad, the rocks he had gathered along the way. We know that the longest treks made by the various tribes of American Indians were not for fame and war but for flint and obsidian for arrows and stones and for baubles for personal adornment. The first things man made after fig leaf shorts were stone implements—so began the first lapidary.

If it is true that one of every 14 persons is collecting rocks I wouldn't be surprised that it all began because it was an activity that gets one outdoors. In the old days when a horse and buggy ride five miles from home on a Sunday afternoon was a real journey, people couldn't follow mineral collecting well; they were too limited. But today it is not considered unusual to go 300 miles from home in an automobile to a mineral locality and a 3000 mile collecting trip for a vacation is the rule rather than the exception. It is the automobile and the increasing tendency of the American to get away from the stone canyons of his cities and get back to nature that has caused his terrific interest in rock collecting, followed by a desire to process his rocks when weather and lack of time prevents his journeying. His collecting isn't confined to a season like fishing and hunting. It requires no licenses or expensive equipment. There is an inexhaustible supply of available material in and around nearly every hamlet in the U. S. Every creek bed is an area of intense interest to the most ignorant rockhound. He takes some rocks home. Sooner or later he finds out from a neighbor that most of what he has hauled home is "dog rock," but he has been a poor hunter indeed if he doesn't bring home something sometime that a friend identifies as a worthwhile mineral specimen or something that can be polished. He then graduates from the "door stop" stage to the amateur mineralogist and lapidary. He buys a book about rocks or he reads an article in the press and unconsciously becomes a student. After a few years he's a mineralogist, a geologist, a traveler and an informed and happy American.

On this June Sunday afternoon as this is written I have no more doubt than that the sun is above my head that scattered all over this land there must be at least one million persons bending their backs to the earth to examine a rock at this very moment. They may return home tired and grimy but the activities of the coming week will be on a higher plane of accomplishment because of their getting their hands in the earth. What a good change in the way of life the automobile has brought us in a generation. Yes, I wouldn't be surprised but what the news item about "10,000,000 semi-precious stone hunters in the United States" is true. For the sake of those 10,000,000 people, I hope it is.



GEM VILLAGE

Black Petrified Wood, 5-10 lbs., lb.	\$2
Colored Wood, 5-10 lbs., lb.	\$1
Ricolite, striped serpentine, lb.	50c
Black Obsidian, lb.	50c
Snowflake Obsidian, lb.	50c
Garnets, pyrope, cutting quality, oz.	50c

Other materials too numerous to mention, also, cabinet specimens, cut stones, silver jewelry, fluorescent materials, mineral books, lapidary work, gold and silver work to order.

THE COLORADO GEM CO.
BAYFIELD, COLO.



MINERAL IDENTIFICATION SIMPLIFIED

By O. C. Smith, A.B., A.M.
2nd Revised Edition
Price \$3.50
Plus Tax in California

Order from — O. C. SMITH - Dept. D
5157 Santa Ana St. — Bell, California

VRECO

Lapidary Supplies

for the
Gem Cutting Shop

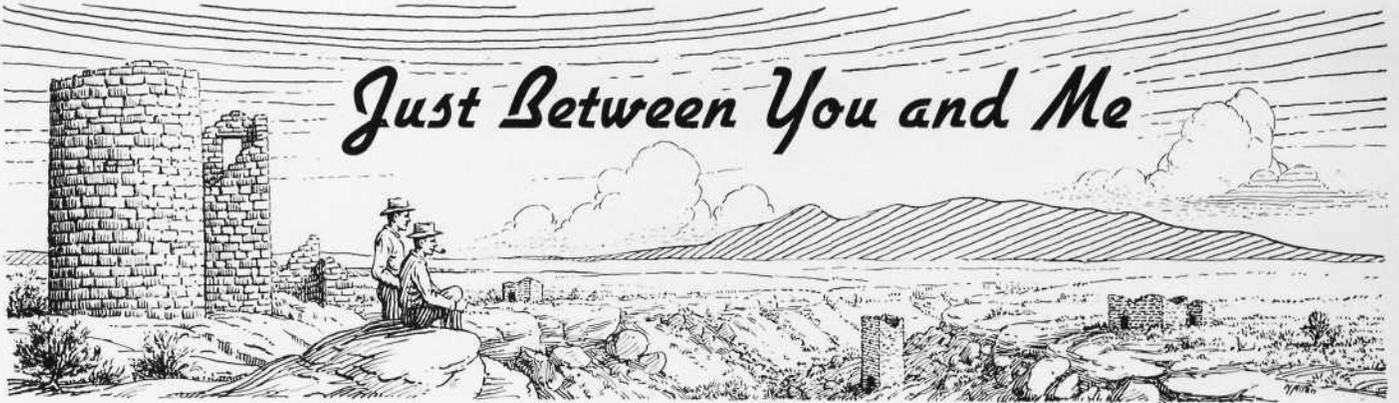
VRECO Diamond Saws
Grinding Wheels
Polishing Wheels

VRECO Abrasive Cloth
Polishing Powders
Abrasive Grains

WRITE FOR COMPLETE LISTING
OF ABOVE ITEMS AND OTHER
VRECO SUPPLIES

VREELAND MANUFACTURING CO.

2026 S. W. Jefferson Street
PORTLAND 1, OREGON



Just Between You and Me

By RANDALL HENDERSON

POSSIBLY Marshal South has the right idea after all. I've just been reading a news dispatch from Washington stating that the army and navy are sending out geological, military and industrial experts to determine the availability of Carlsbad cavern and the other known caves in the United States for possible use for military and industrial purposes and as shelters for civilian population in the event of an atomic war.

If the time ever comes that I have to go into a cavern to escape an enemy armed with atom bombs, I am going to quit even pretending to be a civilized man in a civilized world. I am going to join Marshal's colony and learn to live off the desert landscape. But as I go prowling around in a G-string looking for edible seeds and some tender roots on which to make a meal, I am going to become a crusader for one idea. I am going to try to convince the other surviving savages that in starting to rebuild this bomb-shattered world we should eliminate this great civilized institution known as "competitive enterprise"—meaning competition for dollars and land and world trade and beans.

We will pattern our new civilization after the model of the natural world and make cooperation, not competition, the basis of progress.

Oh, yes we'll have competition—but it won't be this frenzied game of trying to accumulate more rabbit skins than one can use while some other poor devil shivers in the cold. We'll argue among ourselves over the election of a chief, and we'll try to raise more maize on the little patch of ground below our spring than our dumb neighbor can raise on his. But after we've proved to him that we are smarter than he is, we'll take our surplus corn over and give it to him so he won't be hungry. And if any member of the tribe ever tries to corner the market on mesquite beans or make a profit on an improved way of molding clay pots, we'll sentence him to death on the spot.

We won't build our new world quite as fast as has been going on the last 200 years, but it will be a very secure place for unselfish men and women. We may not have as many and such effective gadgets with which to slaughter each other, but there'll be plenty of food and shelter and more real freedom than we've ever known because every human will be trying to help every other human being get an abundance of these essential things—and none who values his neck will ever seek to deprive his neighbor of them.

* * *

I despise this grab-everything-in-sight game the Russians are playing in the post-war period. But after reading some of the propaganda of racial prejudice being broadcasted by Senator Bilbo, I will think even less of the United States Senate if it again permits the Mississippi hate-monger to occupy a seat in that body. After all, most of the Russians could neither read nor write 30 years ago. But the Senate of the United States has back of it the tradition of 150 years of education and enlightenment.

If the constitution under which we are living means anything, it means that the people of all races and creeds and colors who hold American citizenship shall have an equal opportunity to share in the economic and political privileges of this nation. And when a candidate for the United States Senate seeks to secure his election by denying that right to a segment of the voters in his state, then he is repudiating the high principle for which 307,554 American men and women gave their lives in World War II.

* * *

Food and clothing in the New Mexico Indian pueblos is never abundant, according to the white man's standard. But the Pueblos are thrifty. They try to save a little of the year's crops as a reserve for the emergency that may come later.

And if you wonder what constitutes an emergency, according to Indian code, read the following letter addressed on behalf of the Governors of Laguna, Zuni, Sandia, Santa Ana, Zia, Jemez, Cochiti, Taos and San Juan, to Fiorello H. LaGuardia, head of the UNRRA:

"This is governors of Indian pueblos in New Mexico that is writing you this letter. This is what we say:

"Our people have been hearing lots about the peoples and the childrens in Europe and China who are starving. So we've been talking over with our councils and we talk together. So we write you this letter.

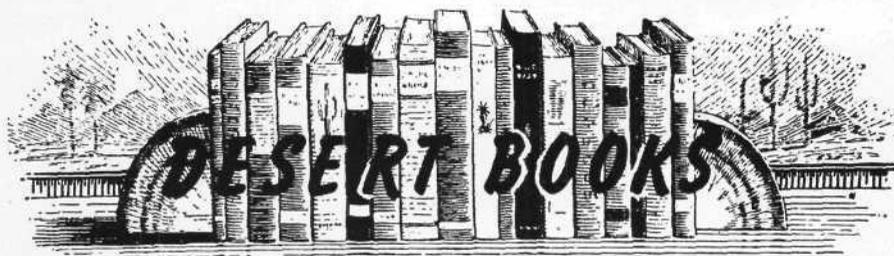
"Us Pueblo Indian people been living in this country long time. Our people they are good farmers but even if they good farmers they not raising much even in good years when lots of rain. Our peoples pray and dance for rain and live right, but even in good years we raise only enough to feed ourselves. Our old custom tell us to save every year part of what we raise for like emergency or crop failure next year. This is not much but all we have.

"Looks like those peoples and children over there got emergency. Lots of our Pueblo boys went to war for this country. Now they back here. They tell us all they see. Our peoples proud of their sons and so glad they come home again to forget the war and live the right way for peace.

"Pretty hard for peoples to forget war and live the right way for peace with empty bellies. So we say we haven't got much saved for our emergency but they got emergency over there so maybe we can help. We got little corn and little wheat for that to be use. Our superintendent tells us you are man that is sending corn and wheat to them peoples and children over there so we write you this letter so you take part of our corn and wheat to them people. This is what we say."

* * *

And there are people who imagine that the white man is superior to the Indian.



"OLDEST AMERICAN" FOUND TO BE A NEW MEXICAN

Recent publication of *THE LOST AMERICAN* climaxes 10 years research among archeological ruins of the Southwest and Mexico by Dr. Frank C. Hibben, author and assistant professor of anthropology at University of New Mexico, Albuquerque. The book, written in popular style, has been chosen as book-of-the-month by American Association for the Advancement of Science.

It is the story of the Sandia man, believed to be the oldest man in America, and of the Folsom man, both of whom were discovered in New Mexico. The Folsom man, originally thought to be the oldest example of prehistoric man, was found to be a youngster compared with the 25,000 year old patriarch discovered in a cave in the Sandia mountains. Strictly speaking, he wasn't discovered, for no human remains have been found in the vicinity of the cave, but his tools and weapons which he left behind told the archeologists among other things, his age. The Folsom man, on the other hand, is a mere stripling of 15,000 years.

These earliest Americans, moreover, were modern men, says Dr. Hibben, for they had developed beyond the earlier European types. Stylized pottery, the spear points that were used, and the fact that he was able to kill mammoth, all point to a certain amount of social organization.

Dr. Hibben, who served in the navy throughout the war, recently has been continuing his study of pueblo culture in Sonora, Mexico. Thomas Crowell Company, New York, 1946.

LIFE ACROSS THE BORDER SHOWN IN CONTRAST

Two recent books about Mexico tell of Mexican villages with a cultural life totally different from each other. Josephina Niggli, in *MEXICAN VILLAGE*, tells a series of bizarre romantic tales of Hidalgo—a crossroads town big enough to have two plazas and many stores, located on a dry mesa where "the dust of Texas plus Texans blow in, where the heat sears vegetation and folk, and the revolution still stirs memories, causes feuds, and shakes family loyalties like dice in a cup."

In contrast to this lively town of cock-fights, bullfights, witchcraft, generals and violence, is the quiet remote fishing village of Ajijic, where the author Dane Chandos

lived and worked, bought land and built a home. His book, *VILLAGE IN THE SUN*, covers a year of his life in the village on the shores of Lake Chapala, in the same area where D. H. Lawrence gathered much of the material for his *Plumed Serpent* and *Mornings in Mexico*.

Mexican Village, University of North Carolina Press, Chapel Hill, \$3.00.

Village in the Sun, G. P. Putnam's Sons, New York, \$2.75.

TWO GOLD TRAIL JOURNALS PUBLISHED

An almost century old manuscript recounting a journey to the gold fields has been edited by David M. Potter and published by Yale University Press, under the title *TRAIL TO CALIFORNIA*. This is the day by day journal kept by Vincent Geiger and Wakeman Bryerly, who were members of the Charlestown (Va.) Mining company. This unique organization, in contrast to the rugged individualism of most of the gold seekers, was a cooperative group who shared all expenses and profit.

Another journal of a trip to the gold fields in 1849 is that of George W. B. Evans, *MEXICAN GOLD TRAIL*, edited by Glenn S. Dumke, published by The Huntington Library, San Marino, California. The account is of special interest because the route taken by the party of 15 was traveled by few. They went by steamboat down the Ohio and Mississippi, then by foot across Texas and northern Mexico. They reached California by way of the

present Nogales and Tucson, crossing the Colorado river at Yuma, Arizona. Its value also is increased by the minute description of every phase of a miner's life in the gold camps.

Trail to California, Geiger and Bryerly, \$3.50. *Mexican Gold Trail*, Evans, \$5.00.

BOOK BRIEFS . . .

Following publication of H. Cyril Johnson's *Scenic Guide to Nevada* is his *Scenic Guide to Northern California*, written in the same style as the first. It is paperbound, with kodachrome covers, contains numerous maps and photos, with information arranged alphabetically. Territory included reaches as far south as Big Sur, Fresno and Bishop.

Cyril Johnson, Susanville, California, 1946. \$1.00.

Two westerns for boys are scheduled for publication this year by G. P. Putnam's Sons. *Let the Coyotes Howl*, by Samuel D. Bogan, is the record of an exciting and enjoyable summer spent at Philmont, the Scout ranch in New Mexico which was given to the Boy Scouts of America by Waite Phillips. Mr. Bogan, a Scoutmaster of New Haven, Connecticut, took six boys there for an archeological expedition—and tells what they did and how they did it, and what they found. Illustrated. \$2.50. It combines travel, adventure and discovery, with archeology, natural history, philosophy and poetry. A family book, suitable to reading aloud.

The second title is *West We Go*, by Jules Loring, an adventure story about a little band of pioneers led by 14 year old Thomas Halpen across the Great Salt Desert, through stretches of the Indian country and over the mountains to California in 1849. \$2.00.

The California Deserts IS AGAIN AVAILABLE

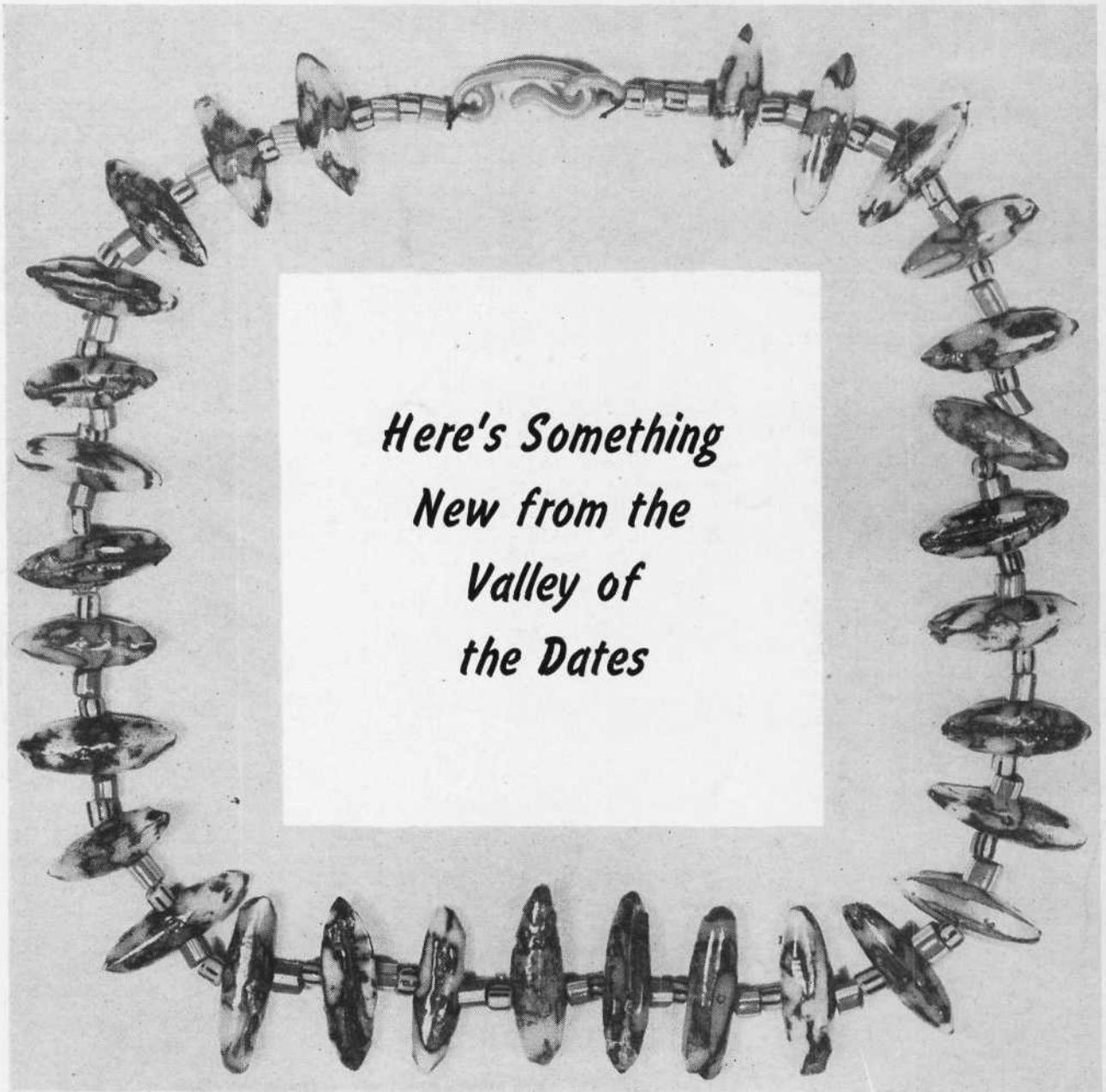
Edmund C. Jaeger's interesting book answers a thousand and one questions that come to the mind of the desert visitor. It covers the plants, birds, animals, insects, reptiles, geology, weather and climate—and there's a chapter on the desert's first dwellers, the aborigines who left their symbols on the rocks and their utensils in the caves. It is written so all may understand.

POSTPAID TO YOU — \$2.50

THE *Desert* MAGAZINE

. El Centro, California

Gems that Grow in a Date Garden--



*Here's Something
New from the
Valley of
the Dates*

AN EXQUISITE NECKLACE . . .

—made from the seeds of California's luscious dates. They are buffed, polished and drilled, and strung with brightly colored Indian beads.

Yes, they have the delicate shading of moss agate, with a gem-like lustre that gives them a distinctive appearance. Something new and different.

POSTPAID TO YOU — \$4.50
Sold under a money-back guarantee of satisfaction

VALERIE JEAN DATE SHOP
THERMAL, CALIFORNIA