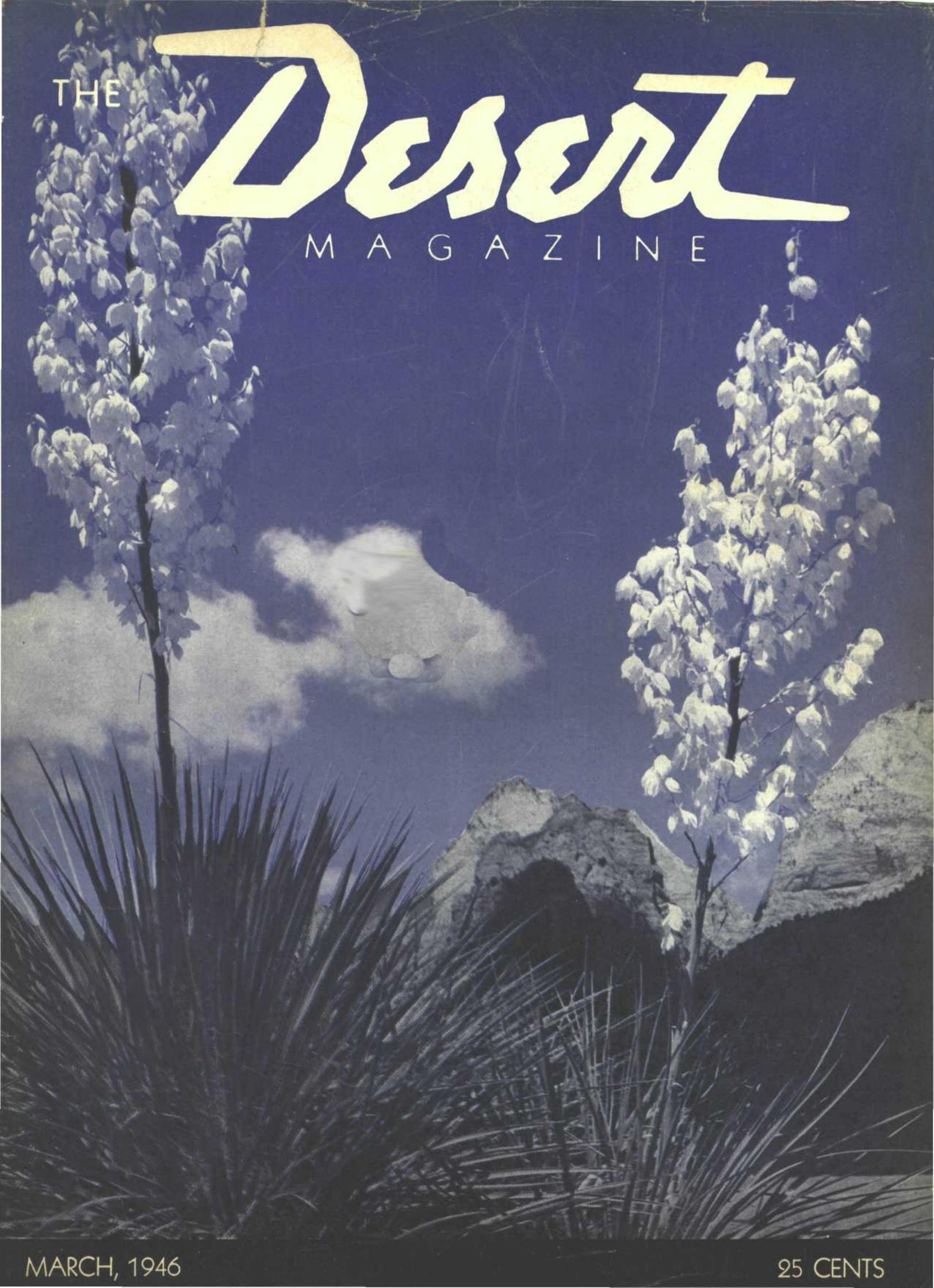


THE

Desert

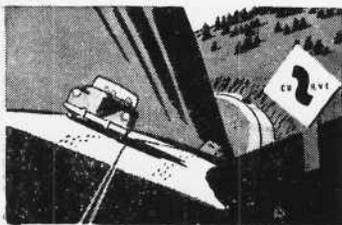
M A G A Z I N E



MARCH, 1946

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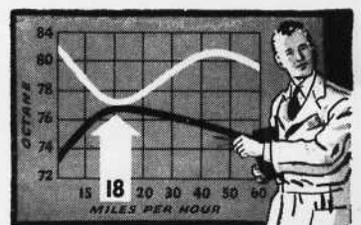
What is "road-rated" gasoline?



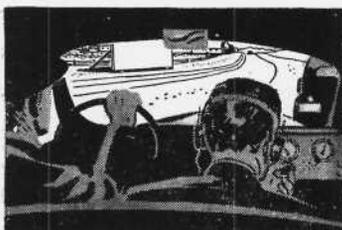
1. Road-rated gasoline is a new development in gasoline refining. It came about through the discovery that the octane rating of a gasoline is not the same at all speeds.



2. Before this was known, standard tests for octane number were run off on laboratory engines at a fixed speed. Obviously, if the octane rating of a gasoline *varied* at different speeds, this method wasn't telling the whole story.



3. For example, two different blends of gasoline might have the same octane rating in an engine at 18 m.p.h., and yet have entirely different values at speeds of 5, 25, or 50 m.p.h.



4. Because of this fact, Union Oil Company now uses the Road Method for determining the quality and performance of "76" Gasoline. This Road Method is just what the name implies—



5. It tests the performance of a gasoline in traffic and out on the open road, where the *whole* story of octane rating can be accurately measured at all speeds and under actual driving conditions.



6. That's why the new Road-Rated "76" Gasoline makes such a difference in your car. It has been more precisely blended than any gasoline previously known. This precision blending means far greater efficiency for your engine—easier, smoother driving.

UNION OIL COMPANY



ROAD-RATED GASOLINE

DESERT Close-Ups

• M. R. Harrington, curator of Southwest Museum, Los Angeles, and contributor to DESERT, has been elected honorary member of the *Sociedad Espeliologica de Cuba* "in consideration of his great services to the archeology of our country." Harrington's Cuban researches were published in book form under the title of *Cuba Before Columbus* by the Museum of the American Indian, Heye Foundation, New York.

• Two DESERT writers have new books scheduled for May publication by the Macmillan company. Ed Ainsworth's book is *Eagles Fly West*, a long novel of the turbulent times of the mid-19th-century—the fight over admission of California to the Union, the approaching Civil War, flaming early California politics—and the personal story of a young New York newspaperman on James Gordon Bennett's old Herald. His hero is inevitably a newsman, since Ainsworth, now editor of Los Angeles Times editorial page, has been one most of his life.

• The other is a book DESERT readers especially will be interested in, both because of the author and locale. John Hilton calls his *Sonora Sketchbook* an experiment in sharing his memories of living, sketching, painting and collecting scientific specimens in Sonora, Mexico.

• Dama Langley's Hopi Eagle story, originally scheduled for this issue, is postponed for a future number. Another contribution of Mrs. Langley's, to appear soon, is a series of two articles about Navajo weaving. First installment will describe the preliminary steps of carding, spinning, cleaning and dyeing. Second article will give more details on actual weaving process, from erection of the loom to description of the various types of rugs woven in Navajoland.

DESERT CALENDAR

- Feb. 28-Mar. 2—International Desert Cavalcade, Calexico, California. Historical pageant and fiesta.
- Mar. 7-9—Rocky Mountain Federation of Mineralogical Societies holds convention at Phoenix, Arizona.
- Mar. 23-24—Apache Grove rodeo, on Clifton-Duncan, Arizona, highway.
- Mar. 26-31—17th annual Southwestern Livestock show and championship rodeo, El Paso, Texas.
- Mar. 30-31—Ninth annual Gem and Mineral show of Southwest Mineralogists, Auditorium, Harvard playground, 6160 Denker avenue, Los Angeles, California.

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Volume 9

MARCH, 1946

Number 5

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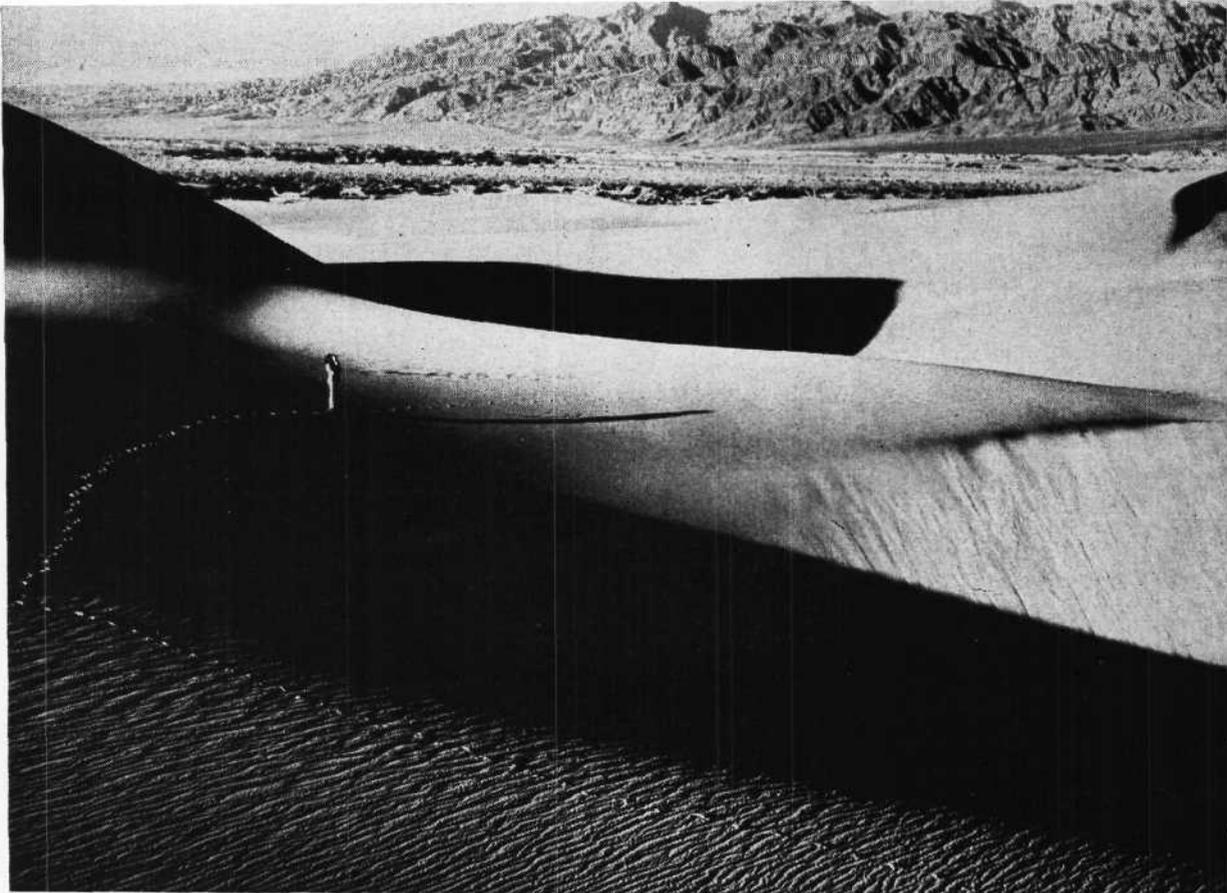
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Death Valley Dunes

By

Hubert A. Lowman



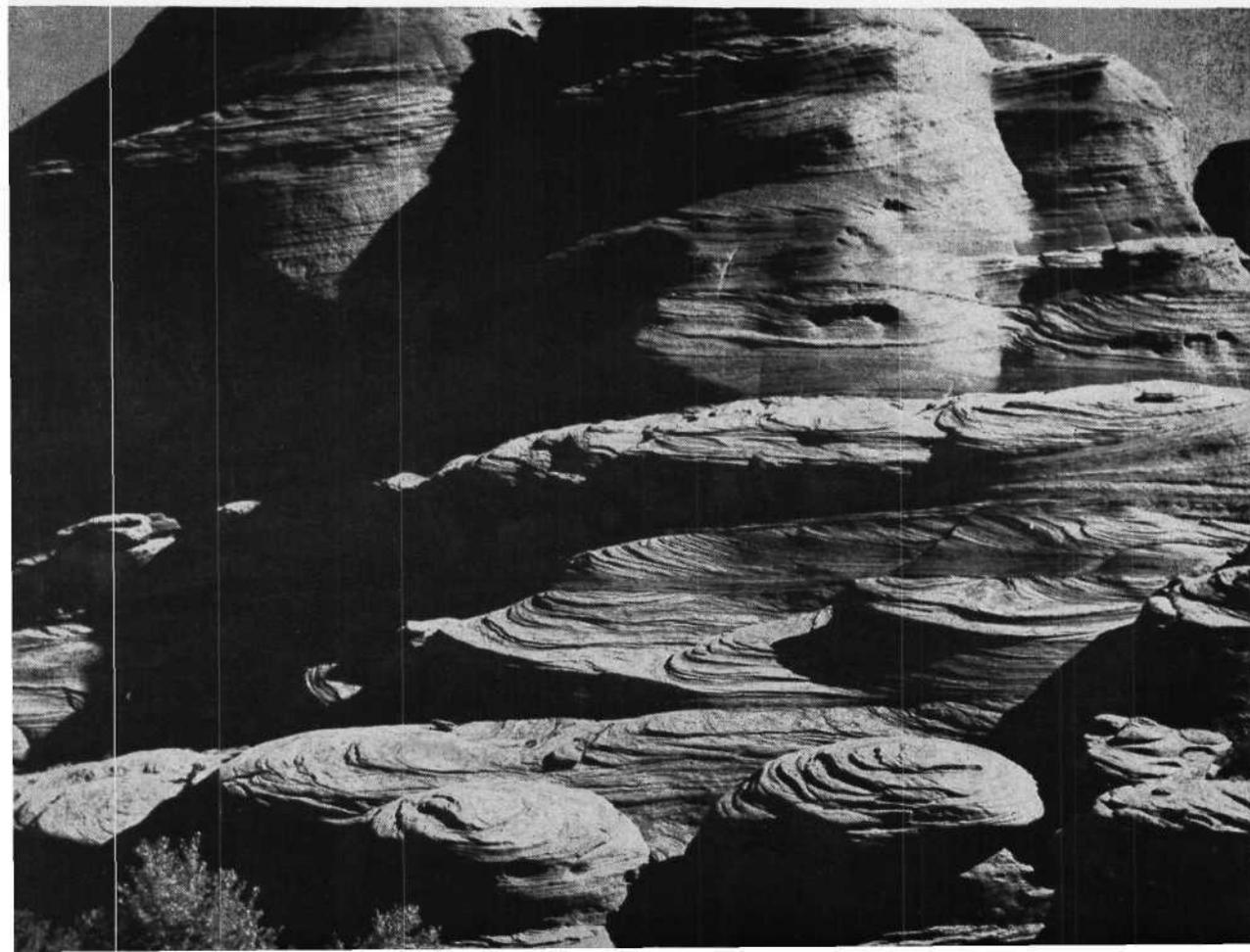
HIGHLIGHTS AND SHADOWS

First Prize Winner in January contest is the dune photo shown above, taken by Hubert A. Lowman, Southgate, California.

Second Prize Winner, by C. R. Ege, Chicago, shows wind-and-water sculptured red sandstone in Canyon de Chelly, Arizona.

Non-prize winning photos were purchased for later publication from: Mrs. Mary Ann Kasey, Prescott, Arizona; Robert Matthews, San Diego, California; Gene O. Parks, Las Vegas, Nevada; Tad Nichols, Tucson, Arizona; Clayton J. Beach, Hollywood, California; Fred H. Ragsdale, Los Angeles, California.

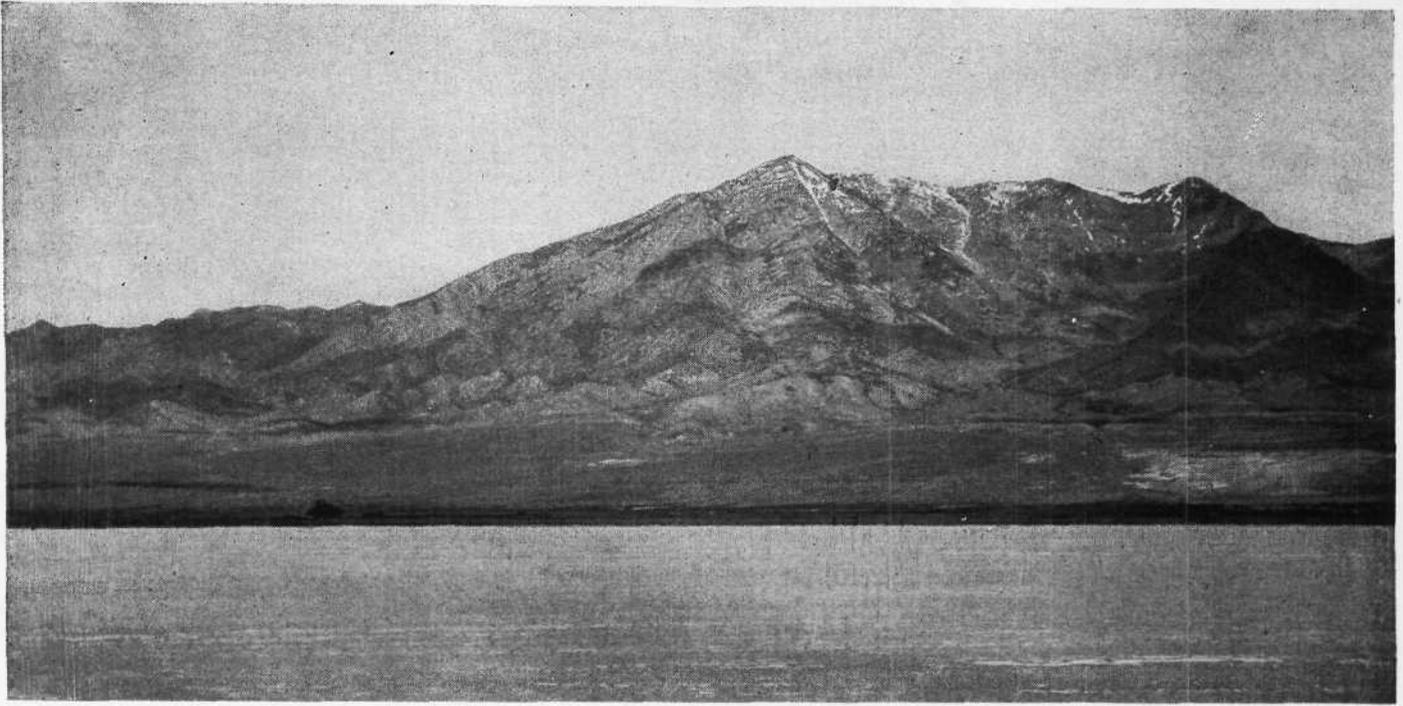
March Contest, which closes March 20, will feature Desert Camping. Suitable subjects will include any phase of camp life. First prize award, \$10; 2nd prize, \$5.00; each non-winning photo accepted for publication \$2.00. See contest rules in January and February issues of Desert Magazine.



Wind Sculptured Sandstone

By

C. R. Ege



Traveling along the "shore" of the Great Salt desert, Bidwell's party found water at the base of Pilot peak. Small group of trees shows location of springs, which also saved the lives of Donner party in 1846.

First Emigrant Train

By CHARLES KELLY

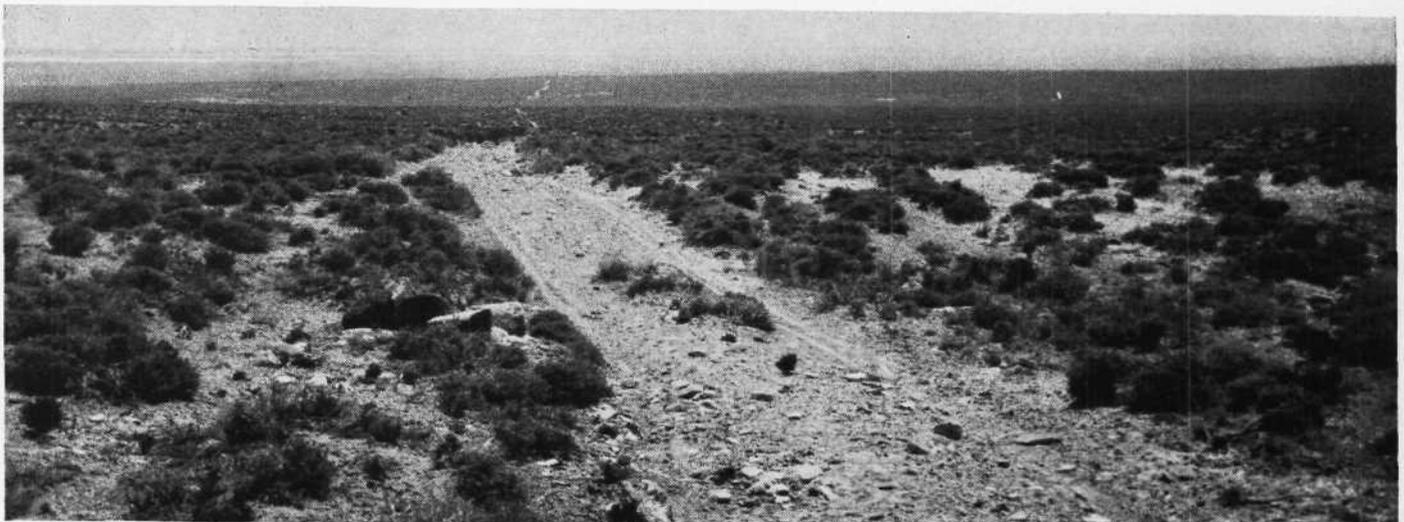
"Mr. Kelsey left his wagons and took his family and goods on pack horses, his oxen being unable to keep up. Distance today about 12 miles."

Reading the journal of John Bidwell one day, I found the above entry, made on September 12, 1841. His location at the time was at a spring somewhere north of the Great Salt desert in Utah. Previously I had followed the old Donner trail of

Without map or guide, John Bidwell's emigrant train struck out cross the Great Salt desert of Utah in 1841 — the first wagon train to attempt this hazardous route to California. Traveling the route over 100 years later in an automobile, Charles Kelly recalls some of the hardships endured by these pathfinders before they finally were forced to abandon their wagons and continue with pack animals.

1846 across the middle of the Salt desert and found remains of six emigrant wagons abandoned there, together with bones of the oxen which drew them. After reading Bidwell's entry it occurred to me there might be a possibility of finding some trace of Kelsey's two wagons, abandoned in Utah five years earlier.

This appeared to be an interesting search, not only because the trail never had been retraced, but because the Bidwell or Bartleson party was first of all the thousands of emigrant trains which later crossed



In northwestern Utah parts of the Bidwell trail of 1841 still are visible, kept open by the wheels of occasional sheep wagons.

the plains. Wheeled vehicles had crossed the continental divide at South Pass several years earlier and Dr. Marcus Whitman had taken one wagon into Idaho on the Oregon trail in 1836; but the Bidwell party of 1841 was the first group of bona fide emigrants to start for California with a wagon train.

This pioneer party left Sapling Grove, Missouri, early in the spring of 1841. Lacking a guide, they joined Father DeSmet's party, led by the mountaineer Thomas Fitzpatrick, continuing with it until they reached a point six miles west of Soda Springs, Idaho. There they left DeSmet and Fitzpatrick. Thirty-four persons, including the wife and child of Samuel Kelsey, turned south along Bear river, without map or guide, in the general direction of California. None of those wagons ever reached their destination, but after the most severe hardships the party, including the woman and child, finally reached California without loss of life.

During this amazing journey John Bidwell, 22-year-old school teacher, kept a journal in which he made daily entries. Reading that record I tried to trace his route on a map, but without success. Previous experience had proven the only way

to do that accurately was to begin at some known point and follow the entire trail, on the ground, observing the country as the writer saw it. So I decided to begin at the point where Bidwell left Father DeSmet.

Driving to Soda Springs, Idaho, I continued west six miles, striking Bear river at Sheep rock, a well known trapper landmark. From that point the trail followed the general course of Bear river, mostly along the river bottom where floods had obliterated any trace of a road. But mountains and other landmarks easily were identified from Bidwell's description. The party had followed the river 14 days, reached its mouth near Great Salt lake, then turned northwest in order to pass around the north end of the lake.

Up to that point they had not experienced any great difficulty and had found water at every camp. But there is little water around the lake shores except at its southern extremity, and the country they were about to traverse became increasingly difficult, even dangerous, especially so because they had not the slightest idea of its nature. When their wagon wheels sank in the flat salt-encrusted ground near the shore they had to find a more solid but

rougher trail in the hills some distance from the lake. Some of the springs they found were hot and sulphurous. Others were impregnated with salt. Frequently no water of any kind could be found, necessitating dry camps.

After various difficulties they crossed the Promontory, a ridge of mountains extending southward into the lake, passing the exact spot where, in 1869, the Golden Spike was driven, marking completion of the first transcontinental railroad.

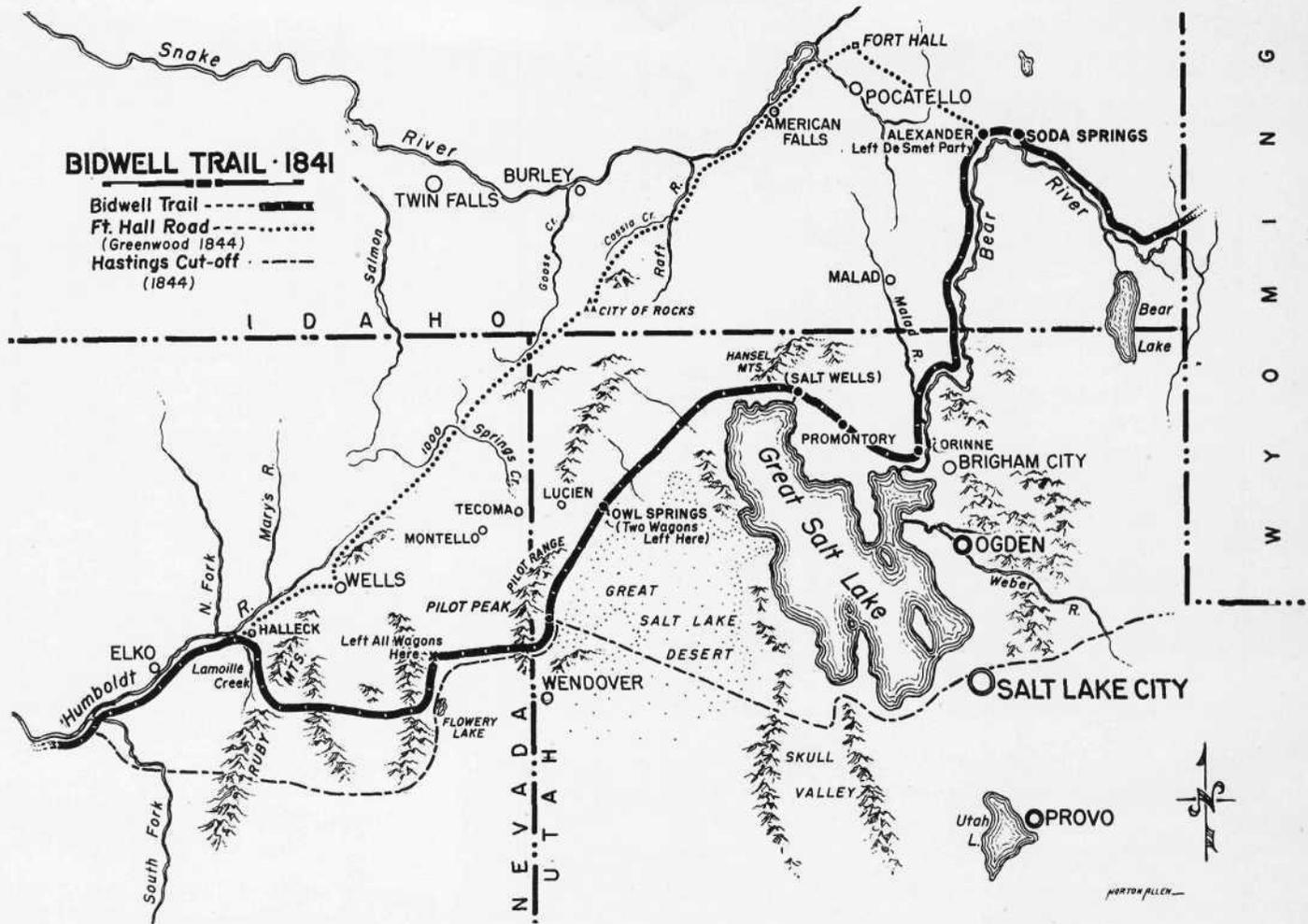
Continuing westward they found a small seep which furnished scarcely sufficient water for the people, none for their oxen. This seep since has been run into a concrete tank by stockmen using that desert range. Ahead lay a great expanse of rolling desert covered by sagebrush, where the party had to make a dry camp, suffering much from thirst.

In following this old trail from Sheep rock to the Promontory, I had been traveling on or close to Bidwell's route, but on comparatively recent roads. But beyond the Golden Spike monument I was on the identical Bidwell trail, kept open by sheep wagons and occasional auto travel—the oldest wagon road in Utah.

After a trying two-day journey beyond

At or near this abandoned ranch in Steptoe valley, Nevada, the remaining wagons of Bidwell's party were abandoned. After crossing mountains in the background, they struck Humboldt river, pioneering that famous road to California.





the seep, Bidwell's party finally found some springs, but the water was too salty to drink. Following a little stream from these springs they found other brackish water, bad but drinkable. Next day, at the foot of the Hansel mountains they found good water, and there they made camp while scouts were sent ahead to try to find the Humboldt river, which Fitzpatrick had told them to follow. When the scouts failed to return on schedule the wagons started on again around the north end of Great Salt lake.

This section near the Hansel mountains recently was visited by a severe earthquake which closed some springs and opened many others. I was fortunate in seeing the country before the quake, when it still was possible to identify each watering place from John Bidwell's careful description. The Salt wells he described are still known by that name.

The next section of the journey was north and west of the lake, between the present stations of Kelton and Lucien. Here I was compelled to leave all traces of modern travel and strike across the desert into unknown country, as Bidwell had done in 1841. The desert is so arid that even sheep cannot live on it and there were no sheep trails to follow. With ten gallons

of water obtained at Kelton, and a stout car, it still was a hazardous adventure, since the country was uninhabited and there was a possibility I might not be able to move either forward or back. Owing to the strenuous days he experienced in this section, Bidwell's notes lacked detail, but his daily mileages were uncannily accurate and by carefully checking them it was possible to identify his various camping places. Here and there I found traces of a very dim old trail which must have been made by those first pioneers, but many storm cut gullies necessitated frequent detours with the car. There was no evidence that any motor vehicle ever had traveled that part of the route.

Dove creek and Muddy creek, two of Bidwell's watering places, flow from the hills toward the lake, but disappear before they reach salt water. At Rosebud ranch, the only inhabited spot I found, is a large beautiful spring, furnishing some water for irrigation. Looking southward from this little green oasis the Great Salt desert lies white and flat to the horizon.

On this most difficult part of the trail I was accompanied by Dan Orr, a rancher from Skull valley. As we continued on toward Lucien we knew we were approaching the place where Kelsey's wagons had been

abandoned, but the rocky barren desert seemed to offer no possibility of a creek or spring. Finally, when Bidwell's indicated mileage was almost exhausted, we passed a rocky ridge and saw before us a large clump of reeds and willows indicating water. This, if we had followed the journal correctly, was the spot we were hunting.

Owl springs, as the place is called, is a series of springs which have been dammed to form a small pond for watering stock. We found evidences of previous ranching activities, the ground being littered with broken wagons and machinery of recent date. In that accumulation of junk it seemed hopeless to look for relics of wagons left there a hundred years before.

After scouting aimlessly for some time, we walked a few rods north to a point where the first water issued out of an almost hidden hole surrounded by tall sagebrush. This appeared to be the principal spring of the group, so we reasoned the Bidwell wagons must have camped here.

After filling our canteens with cold water from the spring we began searching the vicinity without, however, much hope of finding anything. Around this spring was a dense growth of reeds and brush, with no modern litter. We hunted for an



Golden Spike monument at Promontory, Utah. The Bidwell party passed this spot, with the first emigrant wagons in 1841.

hour, but found nothing. Then, just as we were about to leave, I kicked at something that looked like a piece of dark lava rock lying half buried in the sand. Imagine our excitement when it proved to be a piece of rusty old iron—the cast iron bearing from the hub of an old linch-pin wagon!

Encouraged by this find we began digging in the sand all around the spring, but

after hours of work found nothing more—just that one hub bearing.

"Do you realize what we've found?" I asked Dan when we at last were ready to leave.

"Yes," he said, "part of one of Sam Kelsey's wagons."

"Not only that," I replied, "but the oldest piece of wagon iron ever found in

Utah—a bit of one of the first wagons that ever crossed the plains."

"I'm satisfied you're right," Dan said, "because no other emigrant wagons passed this way until long after the linch-pin wagon was replaced by a newer type."

From Owl springs Bidwell's trail turned south, following the western "shore" of the Salt desert along the eastern base of Pilot range, to Pilot peak, where Edwin Bryant's party was surprised to find wagon tracks when it reached that place in 1846. Along the mountain's base there still is a dim and difficult trail, used occasionally by sheep wagons, undoubtedly pioneered in 1841. Apparently it had never been traveled by car or truck. We called it the road of ten thousand gullies.

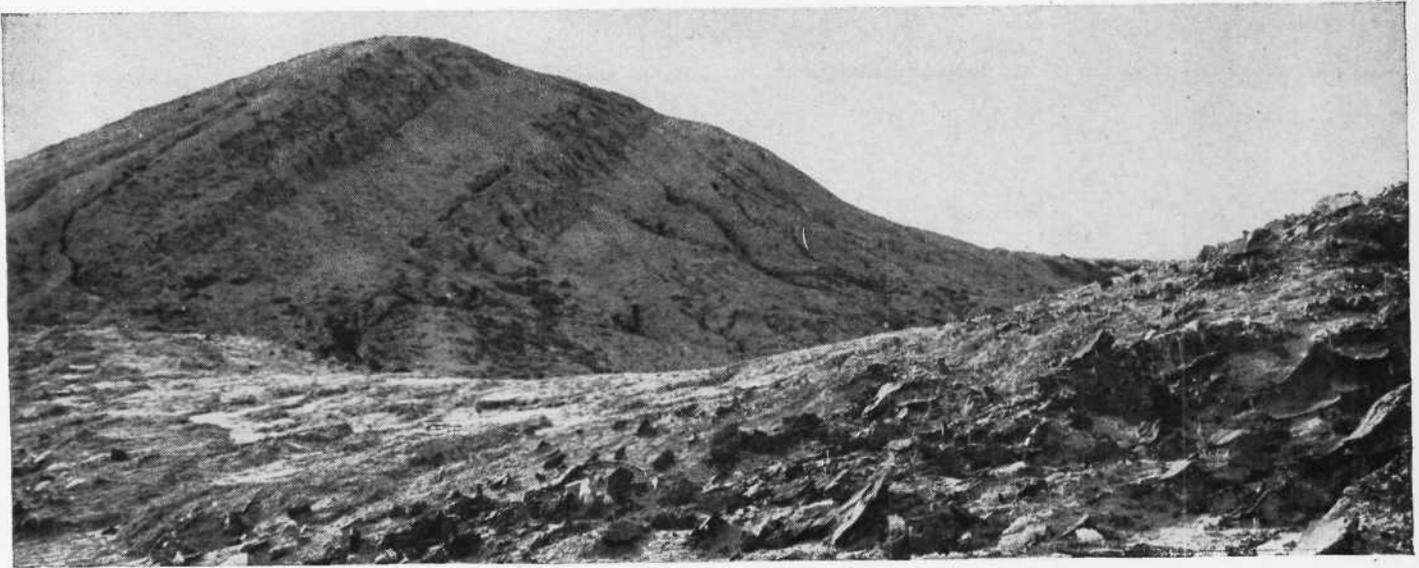
For a short distance beyond Pilot peak Bidwell's trail was followed by the Donner party with enough wagons to leave a permanent well defined road, still easily traced. Here we picked up bits of rusty iron and fragments of wood probably left by the Donner party or later travelers.

When they reached Steptoe valley in Nevada, Bidwell saw before him a high mountain over which it was impossible to take wagons. Camping at a spring they abandoned their wagons, made pack saddles for horses and oxen, and continued on toward California. At this point, shown on Jefferson's map as "Chiles' Cache," we found an abandoned ranch and so much modern debris that search for pioneer relics was hopeless.

After striking Humboldt river at the mouth of Lamoille creek, Bidwell's party followed it to the Sink, made a desperate crossing of the Sierras, and finally arrived at John Marsh's ranch, ragged, footsore and nearly starved. They were the first emigrants to reach California overland.

Between Soda springs in Idaho and Pilot peak in Nevada, the Bidwell route never again was used as an emigrant road and for this reason, perhaps, no one ever had taken the trouble to retrace it. But by following John Bidwell's carefully kept journal it was possible to identify almost every mile of the trail and eventually unearth a small part of one of those first emigrant wagons. That bit of rusted iron, one of the rarest relics of pioneer times, now reposes in the Fort Sutter museum in Sacramento.

Only by actually retracing this old trail can one fully realize the courage and daring of those first emigrants in striking out across such difficult and dangerous deserts and mountains without map or guide. Today there are ranches along Bear river, but between Promontory and Pilot peak the old trail remains, with few exceptions, just as John Bidwell saw it 105 years ago.



*When the sun is right, the hill in the background sparkles with gypsum crystals.
On the next hill are "slapjack" concretions.*

'Petrified Ice' in a Sandstone Zoo

For the field trippers this month, John Hilton describes a rugged area overlooking Southern California's Salton sea, where many years ago he discovered hilltops sparkling with gypsum crystals. From Highway 99 this area appears utterly desolate and forbidding, but it is just a short hike to a field where Nature has covered hundreds of acres with strange "critters" in sandstone.

By JOHN HILTON

ONE OF my first memories of the Salton sea in Southern California is a visit to the old Fish Springs service station near Indian Head rock. I was in my teens at the time and was greatly impressed by the old shore line and the Indian head on the pile of rock now misnamed Travertine point. Since the calcareous tufa of this formation could not be accurately classed as travertine, and the silhouette of the Indian head at sunset is plain to the least imaginative, it would seem that the old name should be retained.

Fish Springs was a busy waterhole in those days. The Taylors had a service station, garage, restaurant and guest cabins. A chap named Chaney and his small daughter Gussie ran a curio store and sort of museum. The place was a truly interesting and educational landmark serving the traveling public in countless ways. But the Taylors and their friendly roadside inn were the victims of progress. State highway engineers, to eliminate a curve and

save a few hundred yards distance, moved the road away from them and with it went their livelihood.

Mr. Chaney, when I first met him, had the boundless energy and enthusiasm sometimes found in the physically handicapped. With the aid of the Taylor boys he had accumulated the finest collection of concretions I ever hope to see in one place. They were artistically arranged in a rock garden, and represented plants, animals, birds and imaginative "critters" in almost endless variety. Even the walks in this garden were concretionary flagstone which had been carefully taken up and numbered and reassembled to fit just as it lay on the desert floor where it was found.

Inside was a "petrified grocery store" which displayed concretions looking like hams, bacon, bologna, wieners, various fruits and vegetables and dozens of other things including a complete line of bakery goods such as french loaves, jelly rolls,

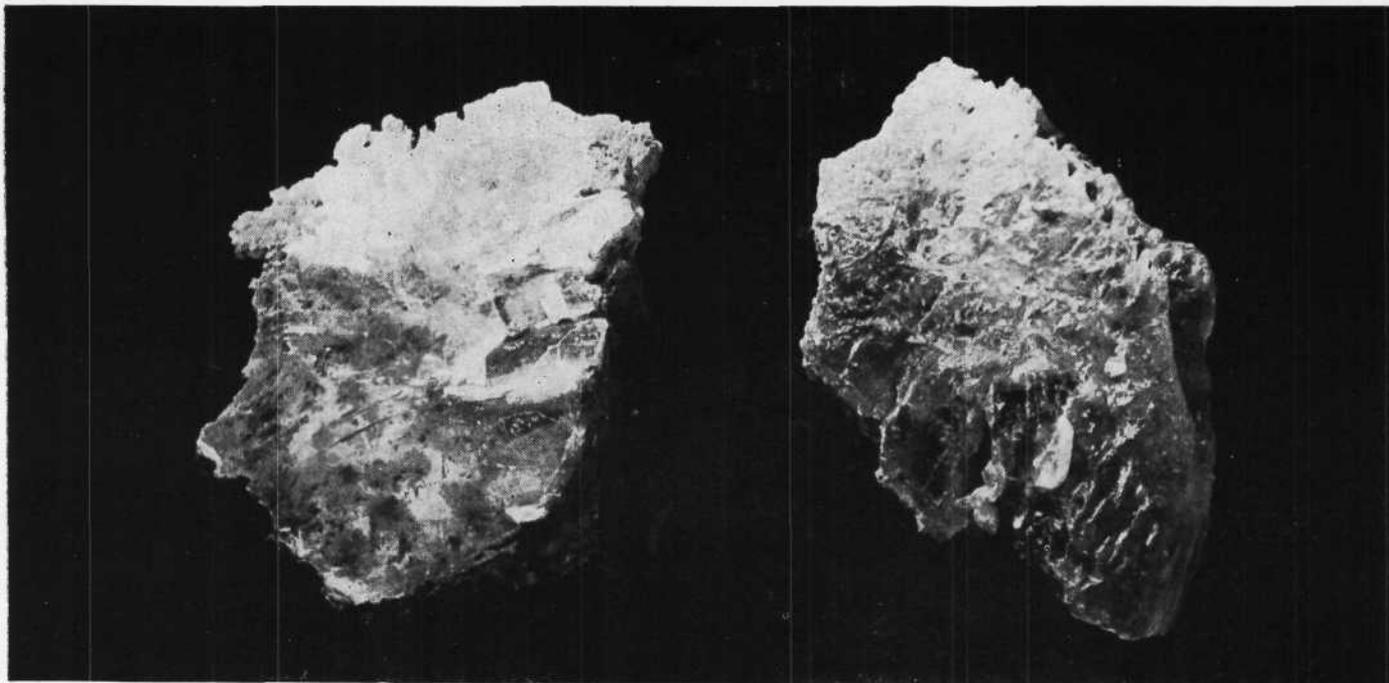
buns, cookies and cakes. Some of the more perishable looking products were packed in "petrified ice" represented by large weather worn gypsum crystals. These latter attracted my attention and Gussie and one of the Taylor boys agreed to show me where they were found.

This was my first field trip into the desert of the Salton sink, and it left a deep impression in my memory.

It was a fine spring day. The air was so clear that it seemed we could toss a rock into the Salton sea from the top of the hill where the gypsum protruded. Desert lilies, white primroses and verbenas dotted the sand drifts among the concretions. My first sight of the desert lily in bloom was one of those thrills I shall always cherish. The memory of little Gussie stopping from time to time smelling and fondling an especially fine spray of flowers comes back as if it had happened only yesterday.

Perhaps the place is too close to my present home, or we have been just too busy, but somehow I have neglected it for years. The other day Eunice and I packed our lunch in the old truck and set off to spend the day in this spot I had been telling her about for so long. We did not stop at the old Fish Springs station, but we could see that someone in a trailer was camping among the ruins. The road builders could not destroy the surrounding scenery and we felt pleased that at least someone was still enjoying it.

When we came to the place where the Sandy Beach road turns off to Salton sea, there were the low hills to the west just as I remembered them. We pulled off the road on a jeep trail and stopped the truck at the foot of the hill where we took stock of the concretion field. Although tons and tons of concretions have been removed both by private collectors and commercial haulers, there are areas where thousands of



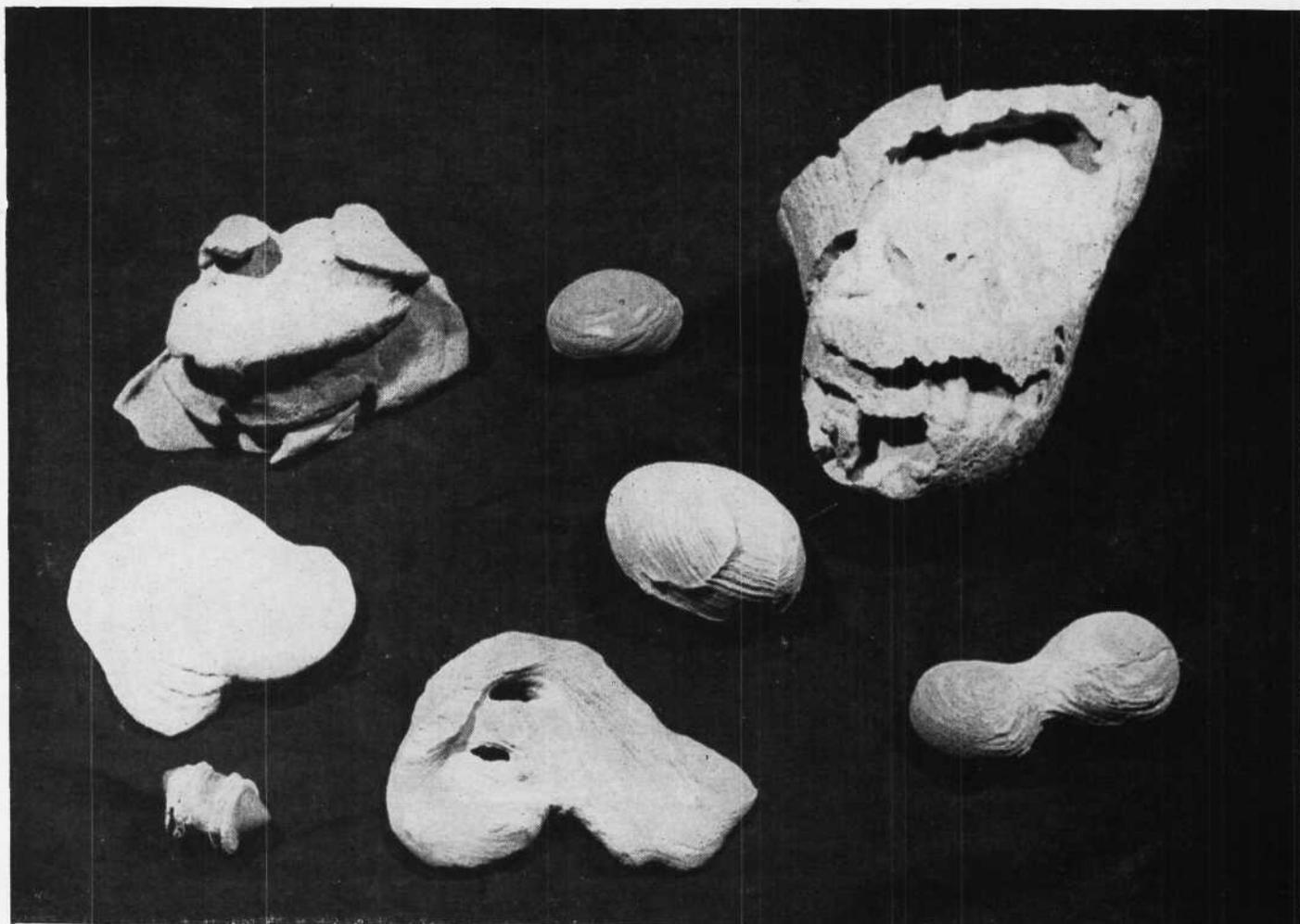
Wind-polished gypsum crystals—some of them like "petrified ice."

fine and interesting concretions remain. Some spots are covered with small round balls ranging in size from a marble to a

basketball. In other places are the "animal cracker" type of concretions of every size and shape. Other areas are scattered with

"pancake" concretions. These are round disks which look for all the world like stacks of flapjacks.

Wind and water have carved many strange forms in the sandstone concretion field described by John Hilton.





Natural drainage created this little pool beside a sand dune.

It was fun to eat steaks again cooked over a desert campfire—just like old times. It made us thankful all over again that the war and all that it meant was over. Somehow this day brought this realization closer to us than all of the VJ Day celebrations. The desert was ours to enjoy again!

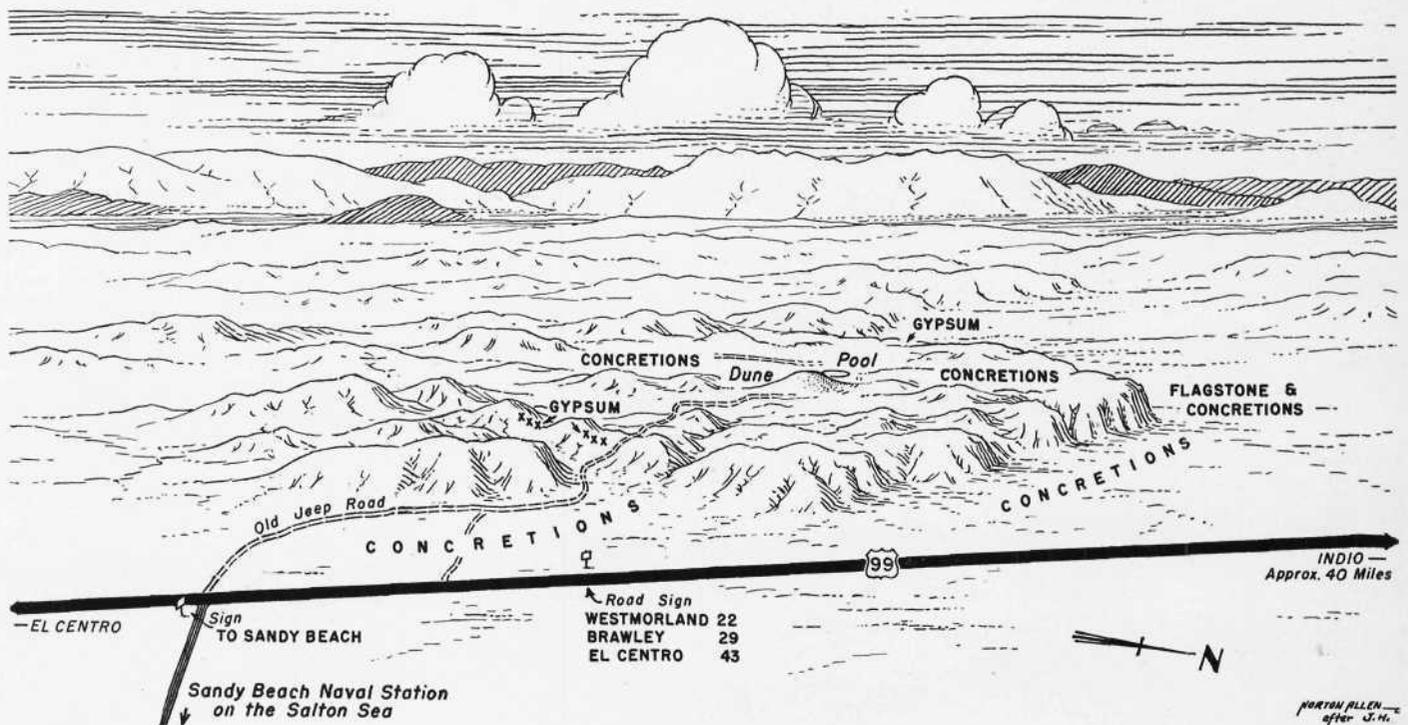
After lunch we started up the hill and found the jeep trail there too. Sand had blown over the trail at points to a depth that made it impossible for us to use the truck so we hiked in the good old-fashioned way.

Near the top of the first rise we saw the glitter of gypsum crystals to our left.

A few steps from the trail the line of crystals started and ran for about a hundred yards following an upturned bed of clay where the crystals had been deposited. They ranged in length from two inches to over a foot. Some were quite clear and others were full of inclusions of clay or small stones, like dirty ice. Those on the surface were wind and water worn to look like melted ice but the ones just under the ground still had their crystal faces. All cleaved readily and the newly exposed surfaces were like polished glass. This by the way, is the best way to show the specimens with inclusions. A sharp knife will

cleave the crystal into two halves having a polish superior to any man could make. When we got our crystals home we were surprised and pleased to find that some of these crystals show a bright greenish-white fluorescence under the quartz light. This fluorescence seems to be greatest along the edges of the crystals and along the central twinning line of the twinned specimens.

Over this first hill (still following the old jeep tracks) we found the site of a movie set where a North African picture was taken at the beginning of the war. Just a few fragments of the pink stucco and a lot of bottle caps remain to show where a





Eunice Hilton with one of the sandstone "critters" on hills overlooking Salton sea.

scene was filmed. Farther on Eunice saw something glittering on the top of a clay hummock and it turned out to be a water glass that had set there until it had turned a bright purple.

Another rise and we were in the wonderland of eroded clay, concretions and sand dunes that I remembered from my first trip. It was early for the desert lilies but after looking about carefully, we discovered that hundreds of them were just pushing up their first leaves. They and the primroses should be in full bloom about the time this article comes off the press.

On some of these high ridges a mile or two back on the mesa, are rows of concretions that have been exposed to violent sand blasting. These are intricately carved and etched into really beautiful patterns. In some cases the wind and sand have blown holes completely through large concretions. In other places concretions were suspended on fragile pedestals of softer sandstone that look as if they would topple in the first breeze. But they had been so streamlined by sand blasting that they now offered little resistance to the elements. In other spots are layers of "concretion lace." These concretions were thin to begin with and the wind and sand have etched them away until they are now as thin as light pasteboard and so full of beautifully patterned holes that it would be impossible to lift one up from its desert bed.

We made a circle hike and on the way

back headed for a sand dune much larger than any that we had noticed. In fact the dune looked quite out of place on the top of a high mesa. Imagine our surprise when we found a clear pool of water at its base. We were almost tempted to believe that the whole thing was a left over from the movie set. It looked phoney enough, but a careful study showed that drainage came from every direction to this low point on the top of the hill. Water had carried deposits of clay to the bed of the pool and had finally sealed it off so that very little rain could leak through the bottom. The last rain had been about a month before, but the water was still standing and it was very wet in spite of its resemblance to a mirage.

There on top of this hill among the sandstone and clay erosions, sitting on a Sahara dune, we found it hard to realize that we actually were just a few minutes walk from one of the major highways in the United States. The slightly higher clay hills around us cut off all but the view of distant mountains. We were in a world apart, bordered by serrated ridges and mounds of pink and tan-striped clay. It was no wonder that the Hollywood folks picked this area for picture backgrounds. It is a photographer's dream come true—plenty of interesting scenes and vistas unmarred by buildings, roads or even distant telegraph poles.

The sun was low when we returned to

the truck. It turned the rose and yellow clays to even brighter hues and the intricate shadows in their erosion patterns were thrown into violent contrast with the colored highlights. One set of little knolls looked so manufactured that they were almost ridiculous. They were evenly spaced about 50 feet apart, all shaped and colored like gum drops and about 15 feet high. I doubt if there was a variation of more than six inches in their size and there were about 20 of them. I daresay the cameramen shied away from that area. They would have been accused of making up the whole landscape of papier-maché.

As we drove back toward home the Chocolate mountains took on their evening rose glow which was reflected in the Salton sea. The western sky was a fiery gold and silhouetted against it as we passed Travertine rock was the massive face of an Indian with a feather in his hair. It made a perfect picture. I wish that there was some way to get the original name back to this outstanding landmark. It would please thousands of old timers and more thousands of the rockhound fraternity who are misled by the name now given this rock on all the desert maps.

NEWEST PLACE NAME IS MOPAH JUNCTION . . .

Chuck Johnson and Merle Bates, who recently have taken over the clean little lunch and service stand across the road from California's inspection station where Highway 95 crosses the Parker dam road, want the world to know their junction has a new name. For years that crossroads was known as Vidal junction, not because Vidal, six miles away, had any special claim to it, but because no one suggested a better name.

Henceforth, this four-corners is to be known as Mopah—named in honor of the great volcanic cone in the nearby Turtle mountains, which is the most conspicuous landmark in this region.

Incidentally, the great plain that extends from the junction to the base of Turtle mountains has become a popular hunting ground for rockhounds seeking chalcidony roses. They are sprinkled over miles of desert floor.

According to Charles Battye, veteran in that part of the desert, Mopah is a Ute Indian word, the "pah" meaning water, and the name originally was given by the Indians to the spring at the base of the volcanic cone.

According to a letter from A. L. Pittinger, the name Carricart Valley has been given the small valley south of Darwin wash where Junction ranch is located, on the Mojave desert. The name honors John Carricart, veteran desert rat of this region, who died in August, 1945.

The Desert is a-Bloom Again

By ARTHUR W. KINNEY
from Los Angeles Times

The desert is a-bloom again;
Spring breathes her virgin prayer;
The hills of turquoise, rose and gold
Are bathed in rain-cleansed air.
The wind runs laughing through the sage;
The smoketrees set on high
Soft melt their azure filigree
Into the lilac sky.

On dune and mesa, through the hours,
The sand-verbena dreams;
The scarlet chuparosa blows,
The purple lupine gleams.
Each sun-awakened bud unfolds
And flaunts a jewel rare—
The desert is a-bloom again;
Spring lilts her love-song there.

At canyon portal ancient palms
Their loveliness display,
Uplifting far their flickering fronds
To greet the fragrant day.
Each hour with rest and peace is sweet,
And life is passing fair—
The desert is a-bloom again;
The smile of God is there.

MIRAGE

By LOIS ELDER STEINER
Rivera, California

Outside my window there is a mist;
An orange tree with golden fruit.
Gray wisps, like greedy fingers, veil
My questing eyes from treasured loot.

Outside my window there is a gloom;
A yellow rose climbs to the eaves.
A waxen Lily with a heart of gold
Towers there above the dripping leaves.

But, Oh, beyond, in silhouette,
Their graceful fronds held high above,
A row of Palm trees strain and reach
For sun and warmth and light they love.

Within my heart there is a mist;
A golden memory of a sun.
Of desert hills; of fronded palms;
Of friendly shadows when the day is done.

Inside my heart there is a mist;
A longing for a desert road.
A sandy wash; a sun baked land;
Just a plain old homely horned toad.

Out there, beyond, the palm trees sway;
They lure—they tantalize—they call.
Defiantly they lift their regal heads.
My desert LIVES out there beyond my wall!

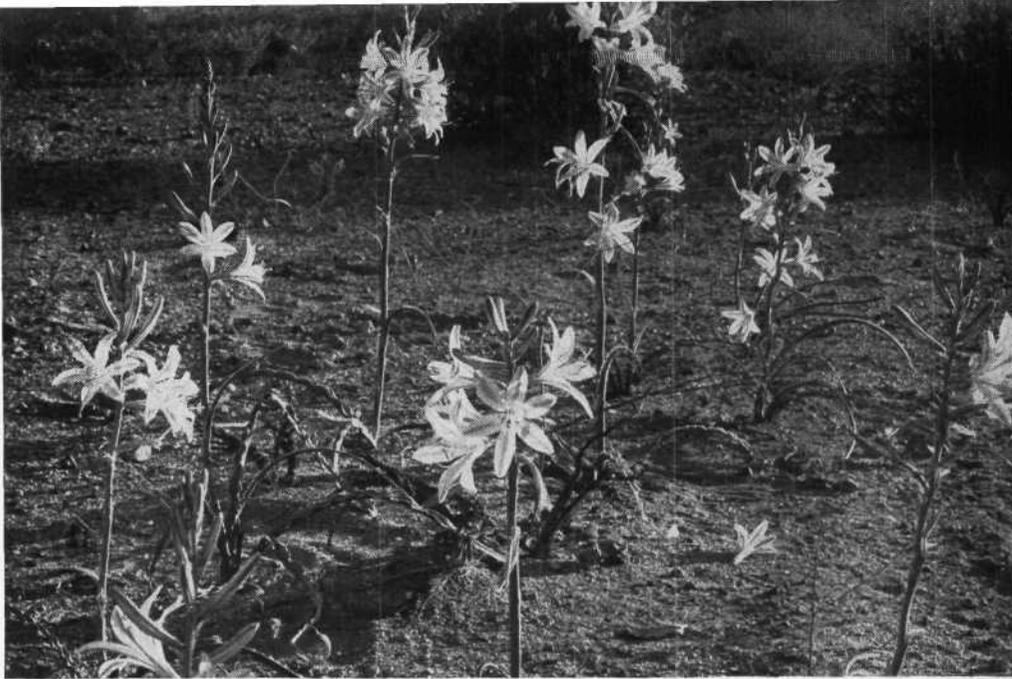
VOICE OF THE DESERT

By CECILE BONHAM
Glendale, California

I am the desert; I possess the key
To that eternal vault of legendary
Where lie the fierce adventurers of old;
My Joseph's coat is stained with yellow gold
And shot with red from jagged wounds I bear,
My yucca hides a dagger in her hair.

But I have softer moments when my sage
Is strong with trappings of a vanished age;
When swift forays of sand are quieted
And dusk lies heavy-lidded on my bed.
Then twilight combs her ultra-colored mane
And spills the fragments on my counterpane.

I am the desert, silent and alone,
But ah, the golden days that I have known!



Desert lilies in Borrego badlands. Photo by Frashers.

DESERT SKULL

By NELL MURBARGER
Costa Mesa, California

A leering skull upon the sand
Bespeaks the vengeance of a land
Which breathes a warning out to men;
"You've died . . . and you shall die again,
Who seek to probe my solitude.
Look first at this—you who'd intrude . . ."

A human skull, by wind whipped free
And buffeted eternally,
For a land whose wrath the brave have fled
Shows neither mercy to its dead . . .
Yet, to atone, the desert through
Those gaping eyes, a primrose grew . . .

DESERT LURE

By ADAH MARGARET HANDLEY
Los Angeles, California

They told me that the desert was colorless and dry,
But the lupines that I saw there were blue as summer sky.
The scarlet sand verbena in a rift of desert land
Made a lovely spot of color between dunes of shifting sand.

The gorgeous ocotillo was a wonder to behold
While the California poppy spread counterpane of gold.
No other blossom far or near in beauty can compare
With the ornate shape and color of the humble prickly pear.

The distance of its horizon, the vastness of its land,
Make one colossal picture that is hard to understand.
To describe its wondrous beauty I can find no fit refrain,
But there's a charm about the desert that lures me back again.

CREED OF THE DESERT

By JUNE LEMERT PAXTON
Yucca Valley, California

The early poppy-bloom bends low
And shivers in the gale;
The storm, it seems, is not aware
That poppy blooms are frail.

CABIN IN THE CANYON

By MRS. E. L. ARTHUR
Long Beach, California

There's a cabin in the canyon,
Underneath the old live oaks,
Where you quit all your pretending,
And just live like common folks.

Where the tree toads talk together
When the twilight softly falls,
As the glowing crimson sunset
Drops behind the canyon walls.

Here, a splash of scarlet paint brush,
There, the candles of the Lord
Lifting straight white bells to Heaven
High above a silver sword.

Where the water softly murmurs
Lullabies across the stone,
So you'll know, in the soft darkness
Of the night, you're not alone.

Little cabin in the canyon
Where we had a lot of fun,
We must leave you gently settin'
Settin' sleepy in the sun.

When we feel we must abandon
Places with too many folks,
There's the cabin in the canyon,
Underneath the sheltering oaks.

MY BURRO JIM AN' ME

By GEORGE WITEMAN TWEEDDALE

I'm headin' fer the hills once more, my burro
Jim an' me.

We're goin' out to Pegleg gulch to hunt fer
gold, you see.

We've bin there seven summers, an' the winters
all but two;
An' we didn't find that Pegleg mine. But now
I'm tellin' you,

Last winter we near found her. Found an ole
marker, we did.

An' my map sez from that ole stake it ain't so
far to the lid

Of the elusive pot of gold I've hunted forty
years.

Sometimes with lots of confidence, sometimes
nigh unto tears.

But this time, as shore as you're born, I'll find
that hidden mine.

Then we is takin' a rest far up in them sugar
pine;

With lots of grub, new pick an' pan, an' a saddle
fer Jim,

Cuz I knows there's gold up Sugar Pine-way—
richer 'an sin.

Eddie Main's prospecting days are over—but he still has vivid and happy memories of the roaring mining camps of his younger days—when gold was easy to get, and no one worried much about keeping it. Eddie never made a rich strike in his life—his top was a little pocket of ore that yielded \$150 a day

while it lasted. But he has friends, many of them, and he is spending the late years of his life at Shoshone south of famous old Jubilee Pass, where he can see most of the surviving desert rats of his generation as they go into or come out of Death Valley just over Sheephead mountain.

He Still Has His Friends . . .

By F. CONRAD

AS THE blazing sun sinks daily behind the purple Panamints, so do the ranks of genuine old-timers of earlier desert boom days grow thinner. Of these, Eddie Main is one of the last.

Five feet three inches tall, Eddie has a spring in his step and clear hazel eyes that twinkle as he tells of days gone by. Eddie loves the desert and the desert loves Eddie.

In a tent, where according to Eddie, "a man can get a breath of air," he lives in comfort and at peace with the world. His place is only a stone's throw from Senator Charlie Brown's general store at Shoshone, California. The location is eight miles south of famous old Jubilee pass, Death Valley is just over the other side of Sheephead mountain. In former days, Eddie made his home at Death Valley junction.

"I like it here, especially since my prospecting days are over," Eddie said. "I see most of my friends from time to time, going in or coming out of the Valley. Except for cooking my meals and taking care of the kids during school year, there isn't much to do. But I like the kids and there's one thing about cooking your own meals . . . if you burn the beans there's no one to blame but yourself."

When asked his age a flash of amusement crossed Eddie's weathered face and his walrus mustache arose and fell spasmodically as he softened a fresh piece of plug. Finally he said honestly, "Don't know for sure, but it was a long time ago."

Further questioning revealed that Eddie Main was born in San Francisco during the reckless, roaring days of the 'sixties when gold, politics and the Barbary coast spotlighted that hectic and historic city in the eyes of the world.

As the prospector ties the location of his claim to natural landmarks, so usually do men date the significant points in their own lives with reference to historic events. Eddie, with tales of rich strikes and yellow gold fresh in his young mind went to Utah in 1893, the year of the Chicago World Fair, to which he constantly refers.

With restless feet and the urge to know what lay beyond he prospected and worked

Eddie Main and the author.





Eddie (left) talks over old times with his neighbor Senator Charlie Brown of Shoshone.

in Utah mines from 1893 to 1897. He was in the boom camps of Bingham, Park City, Eureka and others of that region.

Always on the move, scouring the hills and mountains where there was likelihood of gold, following rumors of new finds and rich diggings, Eddie found himself during the Boer war in the fabulous Slocan country of Canada. While there he worked in such famous mines as the Enterprise, Ten Mile, and many others. In 1898

he was working in the Silver King, another rich mine near Nelson, British Columbia, when first news of gold in Nevada reached the camp. Packing his bedroll he headed south.

"Those were real days," said Eddie, with a reminiscent look in his eyes. "It isn't greediness for wealth that keep a prospector going. That usually comes later when the big money interests move in. But it's the fun of living, the friends you make, and

the freedom that goes with it. Most prospectors wouldn't know what to do with a million dollars if they found it other than to look up all their friends and have fun until the last dollar was gone. In those days things were rough but clean and a man's friends were worth more to him than all the gold in the hills."

At the turn of the century Eddie was in most of the boom camps of both California

and Nevada including Tonopah, Rhyolite, Goldfield, Ivanpah and Weepah.

"Virginia City, the original strike of the great Comstock Lode, was a little before my time," Eddie relates. "But it was still a rip-snortin' camp when I was there in 1899 and 1900. Many of the large fortunes of San Francisco were made at Virginia City. I knew Mackay, Flood, Sutro and Senator Fair—names that have become legends in California.

"Everything was high priced in the boom camps but money was plentiful and nobody cared. The price of a shoe shine in Virginia City was one dollar and I remember one man called Big John whose feet were so big that he voluntarily paid that price per boot."

For many years before the big strike at Tonopah and Rhyolite, Eddie and "Shorty" Harris had been close friends. According to previous tales it was Shorty Harris who made the first discovery in that district while chasing one of his burros. Gradually retreating from Shorty's promises, pleadings, and threats the burro, keeping just out of reach, arrived in a series of barrancas liberally covered with greenish rock. After hours of the game, the burro growing craftier, the prospector madder, Shorty sat on a large boulder to cool off and get his breath.

As his blood pressure receded Shorty pried a piece of rock from the boulder upon which he sat. As the fragment fell to the ground a bit of yellow caught the bright desert sun. Picking up the rock Shorty promptly forgot his anger. He recognized the specimen as "jewelry shop" ore.

In the exuberant celebration of his find, Shorty reputedly sold his property within a few days for several thousand dollars—a mining claim known as "The Bullfrog" which later yielded millions in gold.

"Shorty was the kind of man you don't meet often," said Eddie. "You couldn't find a person on the desert with other than a good word for him. He was a quiet man but when he told you something you could bet your life on it. Shorty always seemed to have money but didn't particularly care about having it for more than just living.

"When we occasionally met with other friends by the campfire, Shorty was usually a listener as the tall tales were spun. Shorty and I were never business partners. He preferred to play a lone hand. But we were the greatest friends for many years . . . the kind that lasts."

A mist comes into Eddie's eyes as he speaks of Shorty Harris. From his cane bottomed rocker, watching another desert evening pass into night, he pointed a finger to a green painted board cottage across the road: "That's where Shorty died. We buried him up in the valley. They put a nice monument up for him. Shorty was a great guy."

Between 1905 and 1910 Eddie was in

the gold booms of Seven Troughs, Gold Circle, Rawhide, National, and Round Mountain, all in Nevada.

"But of all the camps, Goldfield and Tonopah were the biggest pay. At Tonopah, approximately \$300,000,000 worth of gold was supposed to have been taken from the ground. The biggest shipment I ever saw was from a Hay-Moneth lease at Goldfield, Nevada. One car-load of the ore was said to run \$750,000 dollars in gold."

"I have discovered several good but small properties," said Eddie, honestly. "The nearest I ever came to a strike and the biggest money I ever made was during the last war. I leased a property from the White Knob Copper company, near Mackay, Idaho. Some people said I was crazy but shortly after taking that lease I was making a net profit of \$150 per day. But that didn't last long. The pocket was soon worked out."

Later, in 1918, Eddie worked in the nitrate mines of West Virginia.

Eddie is a constant reader and is well versed on most subjects. His tent is half filled with books and magazines. He boasts of having read virtually every Readers Digest edition printed. As a result of a life filled with living, reading, and clear-eyed wisdom, Eddie evolved his own philosophy.

"The world is going too fast," he said, "so fast that in the eagerness to advance it passes most of the beauties. Of course, it isn't the world, but it's people. The earth is still the same and will give any man a good living for the taking. But it is an age of greed and science. The last is all right, properly handled, but the first is no good. The main trouble though is that most everyone tries to tell everyone else what to do, and if they don't do it the first party gets mad'ern hops. We desert people have an unspoken code that's a good one. We do any darn thing we want to do as long as it hurts nobody else, and every one else is free to do the same thing. I believe the whole world would be better off to follow that kind of a code."

Down deep, even the lowliest miner or prospector who ever lived has a great deal more religion than most people, Eddie believes. Speaking of religion, Eddie's eyes sparkle when he relates the story of two Cousin Jacks (Cornishmen) he knew and worked for during the boom at Manhattan, Nevada.

"Those boys had it bad," Eddie smiled. "They closed down their mine every Sunday with full pay, providing every man in their employ listened to them take turns preaching for three hours in the morning. They took a roll call before the meeting started and if anyone showed up missing they were promptly docked in next week's pay envelope. That was the only time in my life, or anyone else's as far as I know, when we were paid for going to church."

In Eddie's opinion, World War II as the first one, also, was just plain folly. "If they'd have pooled the money it cost all the countries involved for six months," Eddie said, "and brought water to only a small part of the world's desert there would have been enough fine land to keep everyone happy for a long, long time." During the war Eddie purchased two-thousand dollars worth of Victory bonds.

Looking back Eddie can compare the past and present with only a degree of sadness. Today most of the roaring boom camps he knew of yesterday are ghost towns or operated by small interests on leases. Only Tonopah has come to life again with a large Army air base stationed there. But even the activity now is not like he knew when money flowed as the earth yielded up its yellow treasure from the nearby desert hills.

But Eddie is a happy man because, to quote a famous author, "he loved his work and that is why." His life is rich in things much more precious than gold, life filled with golden memories and many, many friends.

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THE *Desert* MAGAZINE
El Centro, California

In wandering about the boulder strewn crags of Ghost Mountain and other mesa and canyon areas of the mountains which border the Colorado desert on the west, the South family have come upon evidences of ancient Indian life—sometimes upon the dwelling sites themselves. This month Marshal tells of their latest discovery—and explains why they are not "diggers."

Desert Refuge

BY MARSHAL SOUTH

THESE are the days when storm gods make excursions to the desert. Over the summits of the western mountains they come trooping with their grey blankets, to throw shadows over the sun and to wrap all the creosote lowlands with swirled curtains of wind-whipped rain.

The wind roars and dead leaves of the cottonwoods fly in the blast. All the trees about our little spring, save only one lone tamarisk, are under bare poles, their gaunt skeleton branches gesturing impotently at the yelling gales. The wind is strong here. More strong and savage even than it was on Ghost Mountain. Sticks and small stones fly before it. Buckets and wash-tubs are picked up and flung far into the catsclaw thickets. Beehives are overset and heavy wooden wheelbarrows caught up and hurled crashing. But the house roof holds. And the rock walls defy the blasts.

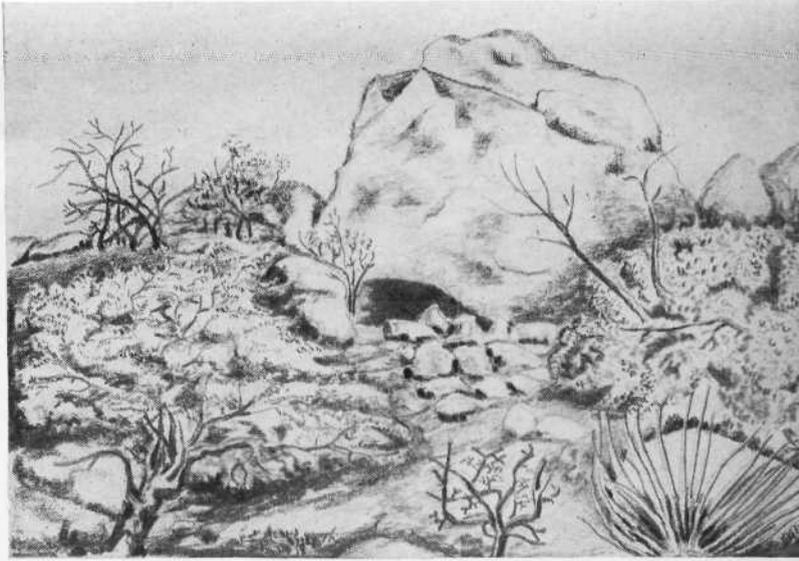
At night we can lie listening to the wind coming down the canyons with the noise of ten thousand horsemen leading the charge of the rumbling chariots of the storm. Across the desert stillness the din of the oncoming fury holds a sense of fear which all foreknowledge will not quite still. It is as though you listened to the resistless advance of some terrible, mysterious host of ghostly riders, whirling down upon you out of the black darkness of the mountain canyons. The skeleton trees, dim-seen against the stars, seem to shiver. Louder and louder grows the wild thunder of the approaching gale, until with a shuddering boom, like that of a mighty breaker bursting upon a rock bound shore, it rolls over house and trees and goes thundering on and away into the black darkness of the eastern lowlands. The house shakes to its foundations. The trees whip and scream. Rain hammers like buckshot upon the iron roof and the whole night yells to a fierce, maniac fury of never-ceasing wind. Only the stars to eastward gleam on in silent, untroubled peace.

But storms bring with them their ultimate reward. For beneath every bush and in the lee of every sheltering stone, new green life is pushing up through the desert soil. The steady drip of the rains has wakened seeds from slumber. Rider's magnifying glasses have plenty of work in the examination of the varied host of tiny shoots and leaves that come pressing up through the hard earth.

It is not all "rain-dances" and "storm-dances." Many, and increasingly long, are the periods when the sun god rules. Then the wind, softened and gentled to a drowsy zephyr, stirs and murmurs among the mesquites and sings through the willows of the canyons. The lizards come out to bask upon the stones. And all the wild things come out of hiding.

Such a day is today. The whole world is wrapped in peace and sun. The damp, fragrant earth is drying out and I have brought a table and my typewriter out into a level space on an old abandoned road.

And I am not alone. For, hardly had I begun typing on the first sheet, when a bright-eyed young cottontail rabbit hopped softly out of the buckwheat bushes. From a distance of about four feet from my chair he studied me intently—a soft, vibrant



Entrance to the cave dwelling of the People of the Vanished Water. Drawing by the author.

ball of grey fur, topped with a sensitive, twitching nose, a pair of wide, dark eyes and two alertly cocked ears.

Having satisfied his curiosity, he presently moved off, nibbling his way leisurely from green shoot to green shoot, until he had disappeared in a catsclaw clump. It was not long, however, before his place was taken by a roadrunner. This comic-opera brigand of the desert bird world, whose lugubrious croaks I had heard for some time from various directions in the surrounding bushes, slipped stealthily out of cover almost under my feet, and, pausing with cocked head, subjected me to much the same appraising scrutiny as had the rabbit. Then with a brief jerk of his long beak and a flirt of his trailing tail, he sidled across the clearing with that exaggerated, professional conspirator manner which roadrunners affect, peeked into a small cholla—on the false scent of a lizard—and moved off. For some time after I could observe him energetically panning out the surrounding territory in search of snacks, peering into bushes and cocking his head hopefully around the lee of rocks.

Despite his buffoonery and the protection which he enjoys the roadrunner is not altogether a blameless character. Strictly speaking he is a bird of prey. Let him be seemingly dozing peacefully upon a stump or rock, and let some tiny feathered songster of the desert lift its notes, and instantly your dozing kindly jester will be sharply awake. In a grim, sinister silence he starts immediately for the spot from which the song came—covering the ground in a swift, ungainly, hunched run which gives you a distinctly unpleasant sensation. Generally, by the time he gets there, the little singer will have sensed its danger and flown off. But sometimes it is taken by surprise. It is true that the roadrunner eats scorpions and a variety of such creatures. Also there are fictional stories about the way it traps and destroys rattlesnakes. But it does other things as well. There is a dark and hidden page to its activities. Its destruction of young quail is said to be considerable.

But due to the inherent savagery of human nature, there is a deadly peril, even to the showing of kindness. Sometimes, with aching hearts, we ask ourselves if it would not be better to chase our cottontail friends away. To throw stones at our jackrabbits and to drive our roadrunners away with sticks. For the next passer-by on these desert trails is likely to be one who neither knows nor regards the Great Law. And those very creatures which we love and have called our friends, will become victims through the trust which they have acquired in their contacts with us.

"Oh boy! Say! See that rabbit? Sittin' right there! C'd almost touch him! Gee—whatta shot!" *Bang!*

"An' lookit that bird. I c'd almost hit him with a stick. Quick!—gimme the gun." *Bang!*

And twitching grey balls of bloodstained fur and ripped feathers, stretched upon the desert earth, seem to cry pitiful

accusation at those who taught them to have trust in anything in human shape.

A few days ago we stumbled upon the ancient dwelling site of the People of the Vanished Water. The sun threw long shadows across the mesa. The thick growth of desert mesquite and underbrush in the narrow, precipitous little canyon was heavy with a weird silence. And the little brook which once had run in its depths had vanished, like many another spring, below the desert sand.

To Rudyard is due the credit of finding the campsite. For it was he who first noticed the fallen walls of crudely piled rock. And he who found the first of the numerous pottery fragments. But it was Rider who first found the low rock-walled cave beneath the giant boulder. After that we carefully began to examine the locality. We found the old worn rubbing stones. And the mortar hole, and the smooth-rubbed places on the granite rocks where seeds and beans had been rubbed into meal. Also we found the old trail, now heavily overgrown and blocked by thorn branches, which led down from the cave entrance into the depths of the shadowy canyon. That was where they must have dipped their water—there beneath the whispering shade of mesquites and sumacs—from the little rill that has vanished.

It is always hard to judge, after the lapse of long stretches of desert years, what a camp or dwelling site must have been in its prime. The primitive people were not given to elaborate buildings. And desert seasons are hard. Shelters of brush rot and blow away, leaving no trace. The flimsy roofs of thatch which may have covered primitively walled enclosures dissolve and disappear. Even the walls of piled dry stone topple and slip down, bit by bit, under the pounding of the rains and the winds. Then the bushes grow up. The catsclaws push in their thorny clumps and the buckwheats invade the dust-silted enclosures. Little remains to tell the story. It is the old rubbing

stones and the worn places on the rocks and the wide scatter of broken pottery that tell most of the tale.

Good caves are a rarity in this section of the desert. Usually those places which are termed "caves" are little more than hollows, either under or between boulders. The cave dwelling of The People of the Vanished Water was one of this kind. A mere shelter beneath the overhang of a tremendous boulder. It was low, and not much, as caves go. But the people who had lived there had gone to a lot of trouble to make it a snug dwelling. With an industry and effort, which can properly be appreciated only by someone who has had a lot of rocks to move, they had walled it around, closing the open sides and leaving only a low narrow doorway by which to enter. Some of the rocks they had piled were big and heavy, and doubtless were intended to act as supports in case the great overhanging rock ever tipped and crushed down. Wind and weather and the passage of years had rolled a great quantity of the smaller stone chinkings out of the walls and left them ruinous and draughty.

But in its prime the shelter must have been comparatively snug. There was a dense blackening of smoke and scorch on the north side of the wall and upon the cave roof at the same spot. Here, evidently, had been the chief fire site. However, scorch discolorations, from numerous fires, were scattered all over the underside of the roof. The cave was low, and washings of rain and the accumulations of packrats had silted it up until now it is not easy to get into. Even in the best of times it must have been impossible to stand erect there. But as a sleeping place and a place in which to huddle comfortably around a tiny fire when the desert storms howled it must have been very serviceable.

We made no attempt to "dig." We never do. Perhaps we are peculiar in this respect. We often have been called sharply to task by those who consider our lack of "scientific enthusiasm" as something culpable. But we are not greatly disturbed at such criticism. Let the dead past bury its dead. What is there to be gained by a ghoulish grubbing in the dust of things once sacred to human hearts. Here once dwelt our brothers and sisters. That is enough. May peace be upon their memory.

It is not the dead bones and relics about ancient dwellings which intrigue us. It is the memories. The bones and the relics are sad and dead. But the memories, if you are attuned to them, are very much alive. Wistful perhaps, and tinged with melancholy. But very real and very human. There is a long enthralling story in all of these old, old dwelling sites. One has only to tread softly and reverently and let the shades of the dead years retell it.

We left the place of The People of the Vanished Water—just as we have gone away and left other ruins of bygone days. But first, along the old overgrown trail, we made our way into the depths of the canyon and we stood upon the banks of the little brook that is now no more. It was a hard passage down that trail. For the mesquite thorns were thick-clustered and sharp. Undoubtedly ours were the first naked bodies to make that passage in many a long year. But it was worth the toil and the scratches. For, standing there in the silent shadows, with the desert wind whispering softly through the branches high overhead, we knew that we were not alone. That not anyone is ever alone. That the whole universe—the past and the present—is held firmly together like beads upon a string. A string that is the love and the infinite mercy of the Great Spirit. And in that realization there is a secure and an abiding Peace.

OPPORTUNITY

*All opportunity is ours
By which to guided be.
We've access to tremendous powers
And noblest destiny.
No one need want, no one need fear,
No one need ever fret,
If he obey his conscience clear,
And do naught to regret.*

—Tanya South



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WRITE BILL WILSON, TONALEA, ARIZONA, FOR RATES AND A BROCHURE DESCRIBING "THE RAINBOW."



Palm, mesquite and cottonwood mingle fronds with branches to form lovely vistas along the winding floor of Fern canyon.

Dripping Springs in the Santa Rosas

Nearly all visitors to Palm Springs sooner or later take the 7-mile drive into scenic Palm canyon—but few of these motorists are aware that in one of the unimpressive little side-canyons along the route is a lovely oasis where native palm trees grow in profusion, and where cool water filters through the fronds of a great bank of maidenhair ferns such as one would never expect to find on the desert. This is the story of Fern canyon hidden deep in a range of almost barren mountains.

By RANDALL HENDERSON

AT VARIOUS times I have found the native *Washingtonia* palm of Southern California growing in almost every possible environment, from below sea level to an elevation of 3000 feet. In some places they grow among

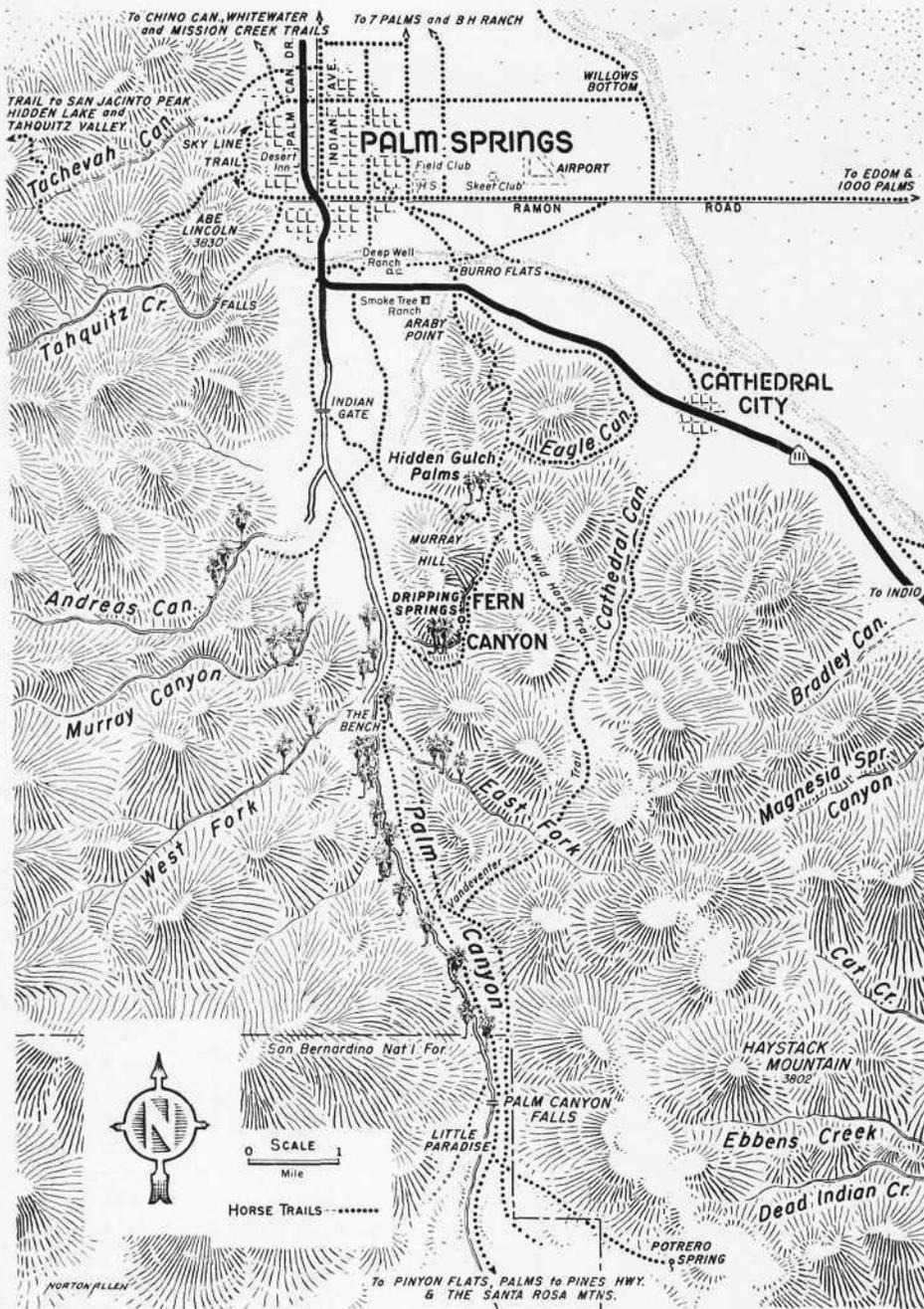
arrowweeds, and I have seen their fronds mingled with the branches of mesquite, cottonwood and sycamore. A few of them in higher altitudes have piñon and juniper for neighbors, and there are canyons where wild grapevine uses them for trellises. It

is not uncommon to find tules and salt grass growing at their base.

But in Fern canyon, in Southern California's Santa Rosa mountains, I found, for the first time, an oasis of majestic palms with a gorgeous bank of maidenhair ferns as a backdrop. One does not generally associate ferns with the hot dry air of the desert country. But Edmund C. Jaeger assures us that at least 12 species are found on the deserts of California.

In Fern canyon an overhanging cliff is covered with them—a great bank of luxuriant maidenhair at least 50 feet long and 10 or 12 feet high. This spot is known as Dripping springs for there is a constant seepage of cool sweet water from the overhanging wall and here ferns thrive in dampness.

Fern canyon and its ferns and palms and seeping springs are not well known to the public. They are neither as accessible nor as widely advertised as neighboring Palm canyon. During the winter season many thousands of motorists, taking the 7-mile drive from Palm Springs to widely



known Palm canyon, pass the inconspicuous portal of Fern canyon without realizing that hidden deep in the mountains is one of the most enchanting of the Southern California palm oases.

The visitor may park his car on the high earthen bench at the entrance to Palm canyon and view a portion of its palm forest without effort. But to enjoy the solitude and beauty of Dripping springs it is necessary to leave the car a quarter mile downstream from the Palm canyon bench and tramp over sand and boulders a distance of two miles. It is not a difficult hike for an active person. But it does involve leaving all trails behind and penetrating a wild rugged region where the landscape remains as Nature created it.

Lower Fern canyon is within the reservation of the Cahuilla Indians at Palm Springs, and it is necessary for motorists

to pay a small toll to the Indian gatekeeper to gain admission to the area. Twice during the past two years when I went there to photograph the canyon for Desert Magazine, I found the gate locked and the gatekeeper gone. Then last fall the Southern California chapter of the Sierra club, resuming its desert weekend trips after the wartime recess, arranged for a trip to Fern canyon, and got permission from the Indians to camp overnight inside the reservation fence.

We parked our cars among the cholla and greasewood and sage along Palm creek, just a few hundred yards below the bench where Palm canyon visitors get their first glimpse of that scenic forest of Washingtonias. Our bedrolls were spread on the sandy floor of the desert.

Wilber E. Andrews of Los Angeles was leader on this trip, and there were 90

Sierrans around the campfire that night for the informal program which is one of the charming features of Sierra club outings. For an hour we sang the old favorite songs to the accompaniment of a ukelele, and then some of the talented campers were called upon for stories and other entertainment. It was just one of those impromptu affairs that any group of Americans would arrange under similar circumstances. We had one uninvited entertainer on this occasion. For reasons known only to himself, a lone coyote took his station on a nearby ridge and let out a few mournful wails. Perhaps it was his way of extending a welcome to these visitors from another world.

Before sunup next morning the scent of coffee and bacon was in the air, and by eight o'clock the various commissary groups had finished their breakfast and camp chores, and a long file of hikers started up Fern canyon, each at his own pace.

Within a half mile we encountered the first of the palm trees, full-skirted natives many years older probably than any member of our party. Then we found palms along the floor of the canyon at intervals for a mile and a half. There were trees of all ages, ranging from tiny seedlings just through the ground to veterans of a generation that had lost its dry fronds in fires perhaps 50 or 100 years ago. I counted 413 palms over three feet high, and estimated there were 150 smaller trees. The palms are on the increase in this canyon, and if unchecked by fires or cloudburst floods, or a very dry cycle when the water supply runs short, the time will come when Fern canyon will compare with some of the finest palm forests on the Southern California desert. There were also many mesquite and a number of cottonwood trees—and the ever-present catsclaw.

In places, we found evidence of an old trail up the canyon, but most of the time we hiked along the sand on the floor of the gorge and scrambled up over the rocks of dry waterfalls. Once, about a mile up the canyon, our way was blocked by a 50-foot waterfall where the almost vertical rock face required careful hand and toe climbing to reach the top, but it was not a serious obstacle.

In hiking up a canyon of this type where it sometimes is necessary to scramble over rocks, rubber-soled shoes make the going much easier and more secure. As a general rule, rubber is best for rocks where the shoes can be kept dry. On the other hand, in following rocky streams where frequent crossings are necessary and shoes are wet much of the time, hob-nails are desirable. Wet rocks are treacherous footing for rubber soles. Fern canyon, however, is so dry that rubber is recommended.

Along part of the distance a little stream flowed on the surface. Then it would disappear for a time. It is good water, and



Where a 50-foot waterfall blocked the canyon the bikers climbed to the top by way of ledges on the sidewalls.

the supply is ample for those making the trip up the canyon. This was November and few flowers were in blossom, but the golden plumes of salt cedar stood out in colorful contrast against the green of wild mint, arrowweed, encelia and the fronds

of young palms. In one place the vegetation is so dense the trail is a tunnel cut through the foliage. But for the most part the canyon is clear and easy to follow.

We ate lunch on the rocks at Dripping springs. It is a perfect picnic spot, where

cool water filters through fronds of maidenhair and falls from the overhang in tiny streams that may be caught in a cup as one stands beside the bank of ferns.

This spring is a natural shower—one that would be hard to resist for one arriv-

Sierra club campers parked their cars among the cholla and greasewood and spread their sleeping bags on the sand.





At Dripping springs the cool water seeps through a great bank of maidenhair ferns covering the side of an overhanging cliff.

ing here on a summer day, hot and perspiring after the two-mile hike. And normally there is no reason why the impulse need be resisted, for the privacy of Dripping springs is seldom disturbed by human visitors.

There is a bridle trail over the ridge from Palm canyon to these springs. The 50-foot waterfall and other rock barriers make it impossible to ride a horse directly up the canyon. From this point the riders' trail continues up along the floor of the canyon and then takes off toward Murray mountain and over a ridge to Hidden

Gulch where there is another tiny oasis of palm trees.

It is an easy hour and a half walk up the canyon to the springs, and a leisurely trip back to the parked cars can be made in an hour.

All visitors to Palm Springs sooner or later learn about Palm and Andreas and Tahquitz canyons. The falls in Tahquitz and the ancient Indian cave at the mouth of Andreas are visited by hundreds every week during the winter season. Fern canyon is not as accessible as the others, but it has all their rugged natural beauty plus a

special charm of its own which may be due to the fact that it very definitely is one of the "out-of-the-way" places.

Sez Hard Rock Shorty of Death Valley



"Yeah, we ain't had nary a horse-thief n'r a stage robber in Death valley for nigh on 11 years," said Hard Rock Shorty. "We don't even take the money outa the cash drawer nights an' the hinges on the safe door is so rusty yu can't even get 'er open."

Shorty edged over a little further on the bench in front of the store to make room for another tourist who had just arrived in Inferno.

"Ol' Pisgah Bill is an ornery cuss, but I gotta give him credit fer bringin' law an' order to these diggin's," Shorty went on.

"Nope, Pisgah ain't no officer, but he did a better job than all the constables we ever had around here. There usta to be a lot o' bad hombres durin' the gold boom. They had a hideout up near the head of Eight-ball crick, an' anybody who liked livin' stayed away from there.

"All except Pisgah. He was a peaceable cuss, and never harmed nobody. An' when the wind blew all his chickens away he decided to try farmin'. There was a tiny meadow just below the spring away up Eight-ball canyon, and Bill decided to try farmin'.

"He built a ditch down from the spring and planted beans and popcorn. Had a good crop too. But one day, just when the corn was gettin' ripe we had one of them sizzling days. Was so hot it melted the anvil over in the blacksmith shop.

"Well, about midafternoon that corn started poppin'. Sounded like a whole army of machine-gunners up in them hills. Kernels wuz flying fast and furious. Killed a burro and three coyotes, and if Bill hadn't run like hell for a cave it'd got him too.

"An' we ain't had one o' them stage robbin' scoundrels around here since."

"Don't tell me you bring that stuff into the **house!**" snorted a rancher friend of Margaret Carrick's when he saw her with some daisies and Johnson grass. He couldn't see any beauty in something he'd spent long hot days chopping out of his fields. Which just goes to show, says Mrs. Carrick, that the point of view determines whether a plant is a weed or a flower. To her, there is more sheer beauty in a rain-washed, sun-bleached stick which the wind has bent into a thing of grace than there is in a hothouse plant. On these pages, she presents some convincing evidence in favor of her opinion.

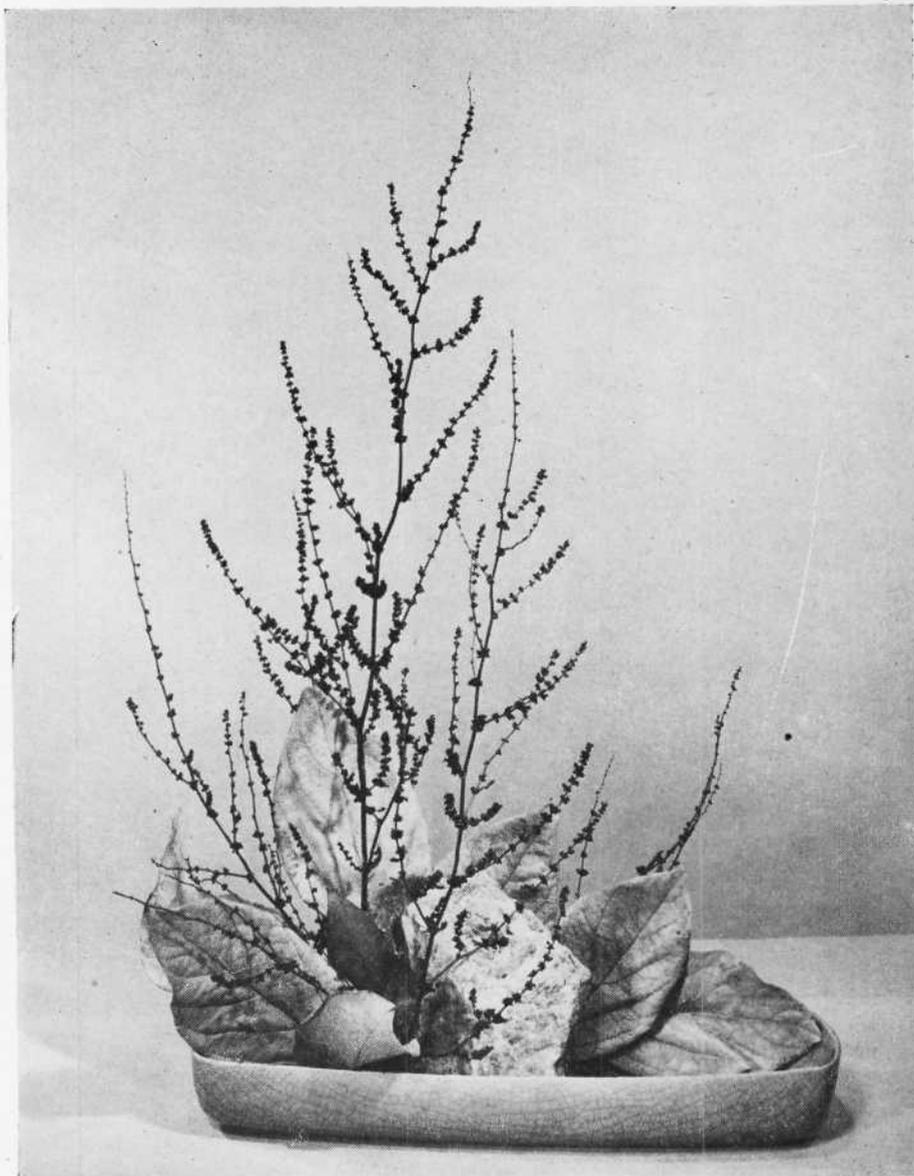
Beauty from the Roadside

By MARGARET CARRICK

Photographs by Jack Carrick

AS I READ a translation from an ancient Chinese classic recently, it occurred to me how much those early artists would have appreciated the natural beauties which our own desertlands have to offer. For thousands of years the Chinese have collected interesting rocks and gnarled, aged knots of wood to bring beauty to their gardens just as they collected art objects for their homes' adornment.

"A private garden should have a section of rustic wildness; if it merely dazzles by its sumptuousness, the vulgarity of it suffocates one's breath." So reads an ancient Chinese proverb. And I find myself in whole-hearted agreement. Of course, those who grow the biggest and the best will, no doubt, say it's simply that I am too lazy to do likewise—and perhaps they are right.



The filigree-fineness of brown dock makes a lacy pattern in this brown-and-turquoise grouping arranged by Margaret Carrick. Broad dried leaves offer a good contrast to the texture of the dock. A chunk of turquoise-colored copper ore extends the color of the bowl up into the brown of the other materials.

I do appreciate a perfectly tended garden and flowers that are almost man-made by special care and culture. But I must confess that I see even more sheer beauty in a rain-washed, sun-bleached stick which God has created and the winds have bent and curved into a thing of grace which cannot be duplicated.

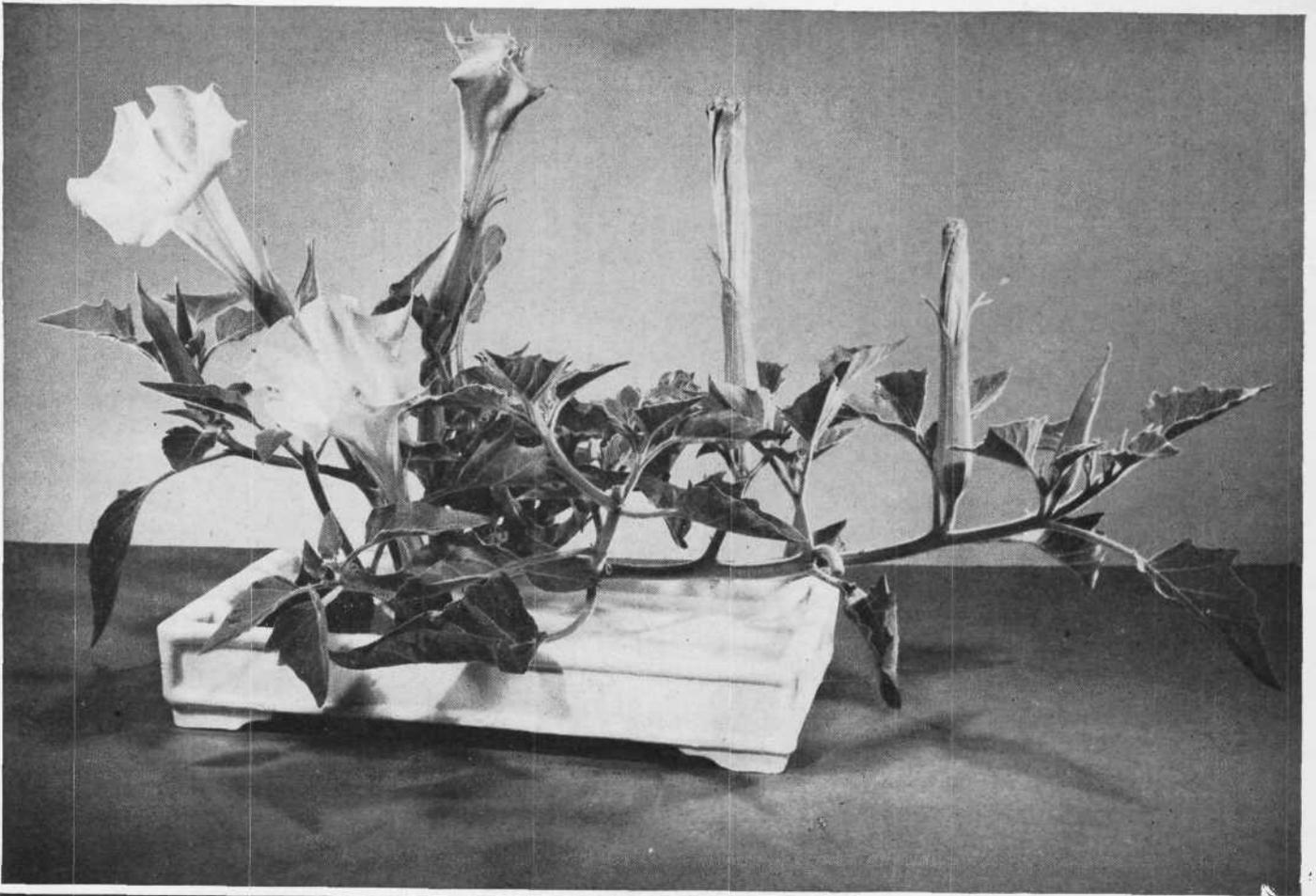
Maybe it is the lazy way, but I can still look at my neighbors' sumptuous gardens and thoroughly enjoy them while I also have within my grasp all the beauty that is going to waste by the roadsides.

All cultivated flowers, as almost everyone knows, had their origins in plants which once grew wild and many were called weeds. In fact, even now, some flowers which are considered weeds in one locality are garden favorites in another. Certainly many specimens which we pass

by without a glance, because they are considered too commonplace to be worthy of our notice, when viewed in the proper setting, have all the elegance of hothouse beauties.

As we of the West gain more time for leisure, we shall doubtless develop a greater appreciation for beauty in the little things about us. Our grandmothers on the covered wagons could hardly have been expected to see much more in a stone than its usefulness for blocking the wagon wheel and a knot of wood would have had no other purpose for her than as fuel for her cooking fire.

And that is as it should be but now we can begin to draw a deep breath and look about us, for grandmother's work is done. What's more she probably saw more of beauty around her than we might suspect



Datura

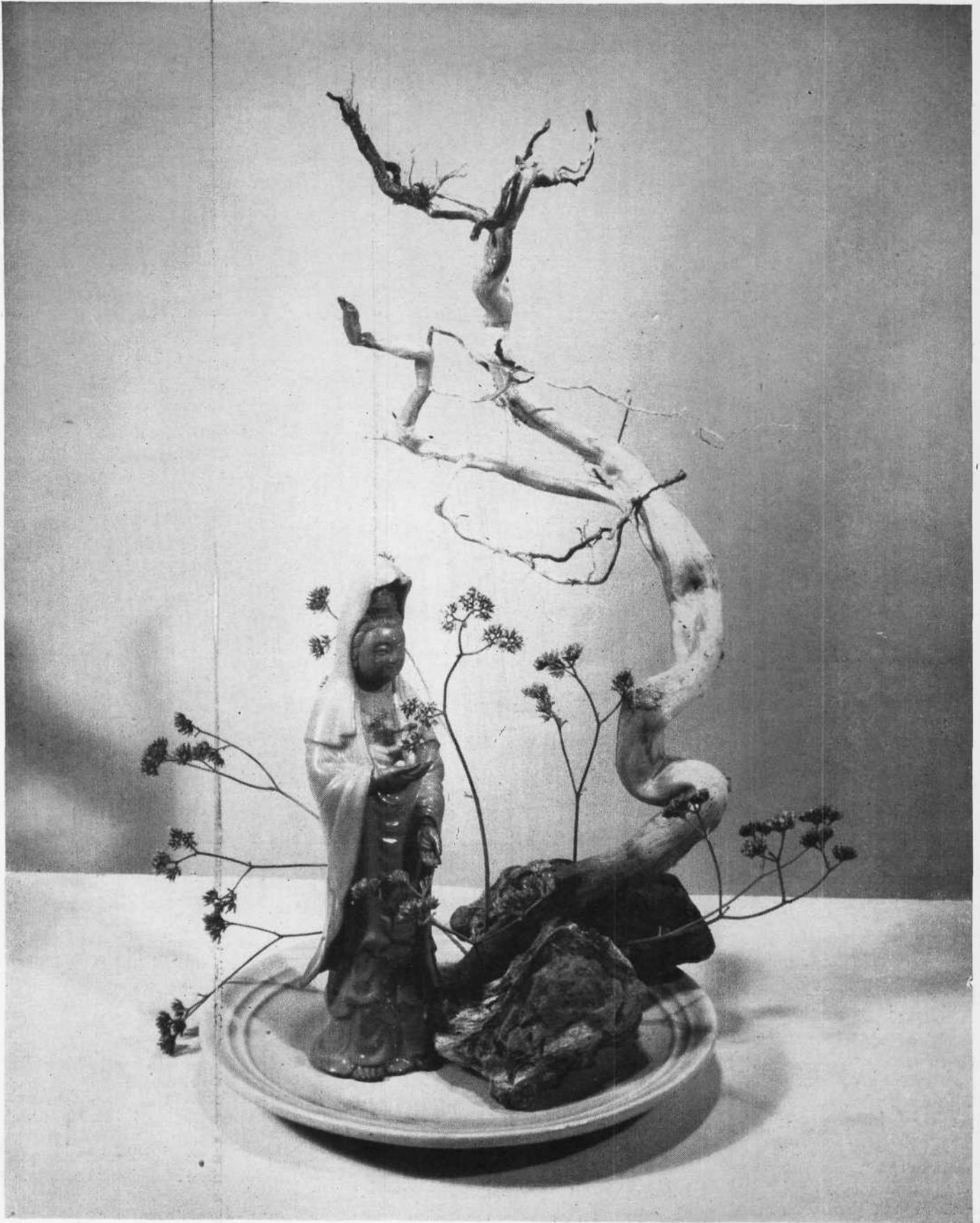
Can you name a single hot-house flower, asks the author, which really has more to offer in beauty of growth and form than these blossoms of the lowly nightshade family. This variety usually is called Datura or Jimson. Blossoms are displayed to best advantage when arranged low in a dish in much the same manner in which they grow all over the West throughout the summer months.



Driftwood

Sticks of driftwood with particularly graceful and intriguing lines are effective with wild oats or other grasses and pieces of rough stone.





There is rhythm in the curving beauty of this bit of root picked up beside a wash where mountain torrents had tossed it after stripping away most of its bark to show the satin sheen beneath. The Chinese figurine is united to the composition by bits of feathery wild growth, while two rocks help support the stick and hide the flower holder as well as give needed weight at the base.



but she just didn't have the time to do anything about it.

Probably the greatest handicap to overcome in seeking beauty in the commonplace is looking with a prejudiced eye. A rancher friend of ours once saw an arrangement I had made of daisies and Johnson grass. With an explosive snort, he said, "Don't tell me you bring that stuff into the house!" And I suppose if I had spent long days in the hot sun chopping Johnson grass out of a cottonfield, I might have difficulty in seeing its decorative possibilities too.

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More Desert Bouquets, arranged by Mrs. Carrick and photographed by her husband Jack Carrick, appeared in December 1944 issue of *Desert Magazine*. They include arrangements of: *Opuntia* cactus and pottery, *Chamiso* and a Mexican figurine, *Desert holly* and *beavertail cactus*, *Succulents* and figurine on slab of sandstone, *Blue pentstemon* and dead branches.

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Eucalyptus

Young eucalyptus leaves have been treated by standing in a solution of two parts water and one part glycerine until they turned a light golden brown. When thus treated they will remain pliant for a year or longer, and need no water. Dried pods of the bottle tree add interest and finish to this arrangement which will last until you grow weary of seeing it around. Put the materials away then, and use them later in a different arrangement.

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Plans Proposed for \$50,000,000 Resort Project Along Salton Sea

Plans are under discussion for the creation of a great desert resort and playground extending along many miles of the now treeless shores of Southern California's below-sea-level Salton sea.

A project which eventually will involve an investment of \$50,000,000 in recreational facilities has been announced tentatively by the Salton Sea Development committee, a community organization in Imperial valley, with Supervisor B. M. Graham of Brawley as chairman.

The committee was formed to cooperate with John Burnham of Rancho Santa Fe and associates, who propose to finance the project. As a preliminary step, the committee has asked the district directors for an option covering the required Salton sea frontage.

Salton sea is the drainage outlet for surplus water from the Imperial irrigation system, and due to the fluctuation in the

amount of this surplus water, the sea level varies several inches from year to year. Much of the surrounding shore is flat and a few inches rise in the sea level may flood thousands of acres of land. As a result of this situation the district in years past has faced costly damage suits from owners whose property was flooded.

As a result of this experience the district several years ago secured withdrawal of all public lands below minus 230 foot level, and by purchase acquired other acreage.

The committee and the legal department of the district are seeking a formula which will make the development possible without interfering with the normal use of the sea as a catch basin.

The preliminary plans of Burnham and his associates call for hotels, homesites, hunting lodges, boat harbor, airstrip, bathing beach, fishing accommodations and the creation of an off-shore island.

Mines and Mining . . .

Washington, D. C. . . .

The Interior department takes the position that legislation extending the present moratorium on mining assessment work is neither necessary nor desirable. Under the act of Congress passed in 1943, a moratorium on the \$100 assessment work requirement was extended to one year after the beginning of the assessment year in which the president or congress declares the war emergency at an end. Undersecretary Fortas of the Interior office construes this to mean that if a formal declaration ending hostilities is issued before July 1, 1946, the moratorium will continue to July 1, 1947. If the declaration does not come until after July 1, 1946, then the moratorium would continue until July 1, 1948. In any case a notice to hold claims must be filed by the claim owner each year.

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Goldfield, Nevada . . .

John Wood, veteran prospector, has brought in sacks of highgrade estimated to run \$30,000 to the ton from his Tule canyon claims 40 miles south of here. The ore is shot full of coarse gold, some as wires two inches long, and nuggets as big as navy beans. Tule canyon was once a rich placer field. After American miners had worked its gravel, Chinese went in and combed the sand. For years, prospectors have been seeking the lode from which the placer gold came, and while Wood's discovery may be only a pocket, there is high hope that he may have found the long-sought vein.

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Austin, Nevada . . .

A. E. Hepburn of Grants Pass, Oregon, has stated that large scale development work is to be started during the spring on 38 claims of the Gold Coin group 44 miles west of here. Hepburn recently bought the property from John Buzanes. More than 100,000 tons of ore are reported to have been blocked out during the 35 years Buzanes has owned the claims.

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San Bernardino, California . . .

Operating as a nonprofit corporation, a Mining Congress of Southern California was tentatively formed in January with S. T. Schreiber as secretary. The Congress is organized as a liaison organization between working mine operators and industry and governmental agencies. Many well known Southern California mining men are included in its charter personnel. Southern California counties, where there is active mining, are to be formed into four districts to work in close cooperation with the parent organization at San Bernardino.

Gallup, New Mexico . . .

Indian traders who supply silver to Indian craftsmen are facing a possible critical shortage of metal when the Greene act expires December 31 unless Congress takes steps to relieve the situation. Under the Greene act the U.S. treasury is permitted to sell limited quantities of silver to commercial users at a pegged price of 71.11 cents. The House has passed a measure extending the provisions of the Greene act two years, but in the Senate the silver bloc of western senators is exerting pressure to have the price raised to \$1.29 an ounce. The U.S. treasury holds an enormous stock of silver not needed for coinage but the silver bloc has been strong enough to prevent the release of most of it for commercial purposes. With this stock frozen, commercial users of silver are dependent for part of their supply on importations from Mexico and South America. These sources, however, are inclined to hold their stocks for a possible higher ceiling in the United States. At present the Indian Traders' association is unable to supply its members with sheet silver, having only silver wire and slugs.

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Salt Lake City, Utah . . .

Organized to take over and develop extensive gilsonite deposits in eastern Utah, the American Gilsonite company, backed by Standard of California and Barber Asphalt corporation, has been formed recently. Clarence F. Hansen of Standard's manufacturing department is president of the new company. Gilsonite is a hydrocarbon closely related to petroleum and was named after a Salt Lake man who first put it to commercial use. Because of its resistance to acid, it is used in the manufacture of storage battery cases. It is also used in paints, varnishes and inks, and its use as a binder for plastics is being investigated. It occurs in practically a pure state in vertical fractures up to 18 feet in width.

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Round Mountain, Nevada . . .

According to Jay A. Carpenter, director of the Nevada bureau of mines, a promising deposit of uranium is being developed by John A. and Perry A. Henebergh on their claims in this district. Tests made 15 years ago showed that the bright greenish mineral in ore from these mines was torbenite, a copper uranium phosphate. Little attention was paid to the discovery at that time. Recently new tests have been made and Director Walter S. Palmer of the state laboratory reported that ultraviolet light had disclosed sufficient torbenite to indicate a commercial ore of uranium.

Searchlight, Nevada . . .

Increasing demand for turquoise as a result of the active market for Indian jewelry has brought two groups of mining men to this district recently to investigate the A. G. Klinger turquoise claims in the Crescent area 16 miles west of here. Klinger, part owner of the New York Tiffany group, reports there are large deposits of gem quality stone in the district.

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Carson City, Nevada . . .

Alarmed by the depletion of Nevada's rich mineral ores during the war, the Nevada state mining advisory board has called on the Mackay school of mines to undertake a four-point program of research and rehabilitation: (1) To seek through research to make lower grade and refractory ores profitable to the mining industry. (2) To operate a pilot plant for large scale tests of refractory ores. (3) To operate a practice mine where students will have access to most efficient equipment to be developed. (4) To equip the school of mines with a geophysical laboratory where newest instruments for mining and field work will be available.

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Tonopah, Nevada . . .

Mark Bradshaw, veteran mining engineer and operator, reports that he has purchased the Diamondfield Daisy mine at Goldfield, and will begin restoration and development work as soon as men and materials are available. According to reports there are no less than 10 shafts on the Daisy property, all of them exposing milling or shipping ore. The mine has been idle for many years.

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Electrification of Phelps Dodge corporation's New Cornelia copper mine pit at Ajo, Arizona, at a cost of \$2,000,000 has been announced. Electric power will take the place of the steam locomotives that have pulled the ore out of the open cut since 1917.

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Ending negotiations underway for some time, the Phelps Dodge corporation has agreed to pay the San Carlos irrigation project \$275,000 for water diverted to mining operations during the war when emergency operations required more water than the mining concern had available from other sources.

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Dr. Ben H. Parker has been named president of the Colorado school of mines at Golden to succeed Dr. M. F. Coolbaugh who retired last October.

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A recent and comparatively simple test for the detection of uranium through use of ultraviolet rays is explained in "Report of Investigation 7337, Fluorescent Test for Uranium" by Claude W. Sill and H. E. Peterson, Bureau of Mines, Department of Interior, Washington, D. C.



F. X. Aubrey, Pathfinder. Engraving from "The Leading Facts of New Mexican History," by Ralph E. Twitchell. Reproduction by Dr. J. G. Brown.

One of the least known among daring adventurers of the Southwest is Francois Xavier Aubrey, the French-Canadian who first won fame by riding horseback from Santa Fe to Independence, Missouri, in five days and sixteen hours. Frank C. Lockwood, dean of Arizona historians, here sketches the life of Aubrey—hunter, trapper and pathfinder, who met an early and tragic death just after completing a record-making exploratory trip from San Jose, California, to Albuquerque, New Mexico.

He Rode the Wilderness Trail

By FRANK C. LOCKWOOD

ON ARIZONA maps may be found Aubrey City, Aubrey Peak, and Aubrey Cliffs—all on or near the Colorado river. A street in Prescott is named for Aubrey, and the earliest wagon trail across central Arizona bears his name. By threads so slight as these this daring man is for all time attached to Arizona history. One other thing shows how great was his fame in the Southwest. In S. N. Carval's *Incidents of Travel and Adventure* I find under date of 1853 reference to a steamboat that ran on the Missouri river from St. Louis westward, named "The F. X. Aubrey" in honor of the explorer.

Though early known as a pioneer hunter and trapper in the Southwest, fame first came to Aubrey with the soubriquet "Skimmer of the Plains," which he won by riding horseback from Santa Fe to Independence, Missouri, in five days and 16 hours. In 1846, a man named Tobin had covered this distance in such good time that his achievement was published throughout the West. Aubrey bet a large sum of money that he could cut Tobin's record by one third. In 1848 he undertook to make good his boast.

To succeed it was necessary for him to ride the distance of 780 miles in seven days and eight hours. He could use as many horses as he pleased. By sending animals ahead with army wagon trains returning eastward he was able to place relays at suitable points. Almost two weeks before he started he sent the first extra horse ahead. At intervals six horses were sent on in advance. The seventh animal, a splendid racing mare, he mounted when he started on his long and daring ride. He had to ride

150 miles before he overtook his first relay, as the wagon train had traveled faster than he had thought it could. Shifting his saddle and taking some food, he at once hurried on.

The second train was overhauled on the Arkansas river at the Kansas line. He ate, took a few hours rest, and then shot forward on his third horse. As the Indians were hostile, he could sleep only when in camp with the wagon trains. Three times he snatched a little sleep in this way. His goal was reached far ahead of the specified hour, so he received bonuses for out-riding his own announced schedule, winning all told more than \$5000.

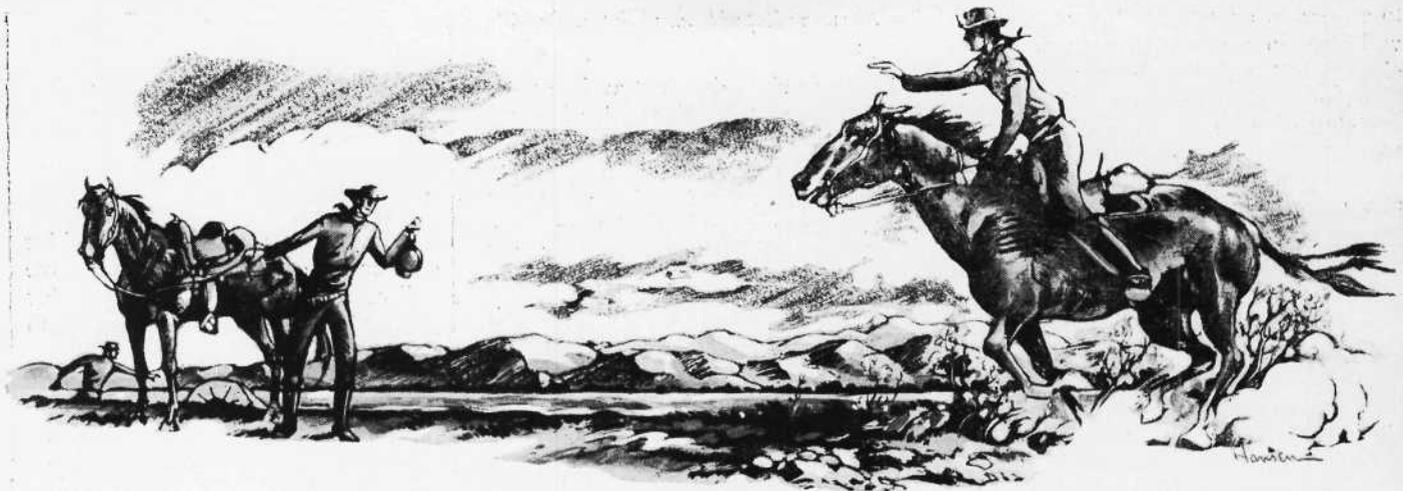
In the autumn of 1852, Aubrey successfully drove a flock of sheep from New Mexico to California across a portion of Sonora later included in Arizona. Writing to a member of his family in November 1852, Governor Lane of New Mexico said: "Tell Ann that I told Mr. Aubrey of her wish, or rather curiosity, to see a man whose life was passed in such wild adventures. And he has promised to wait upon her, when he next visits St. Louis. He is French Canadian, and is quite well bred. He sets out tomorrow for California *via* the Mexican state—Sonora, with a flock of sheep. He appears to be restless when stationary, and only contented when making these appalling journeys. A thousand miles seem to be no more for him than a hundred for me."

In November, 1853, in Albuquerque, Lieutenant A. W. Whipple consulted Aubrey with respect to the feasibility of a railroad route between Zuñi and the Colorado. He had just completed a journey across

Arizona with wagons for the purpose of demonstrating that a railroad could be built between Santa Fe and the coast. He now warned Whipple that the course explored by him was impracticable as a railroad route. On his trip Aubrey had crossed the Colorado on a raft about where the Bill Williams Fork enters. The raft was made of logs bound together with ropes. But beaver gnawed the ropes in two and the logs went floating down the river. A second raft had to be made before the whole party with all the equipment could be brought across.

Aubrey's journal of the expedition is full of thrilling incidents. August 15, his party was suddenly attacked at short range by Coyotero Apaches whom they had until then thought friendly. They were able to save themselves only by fast and furious use of the Colt revolver, recently perfected. Twenty-five Indians were killed and many more wounded. Twelve of Aubrey's men were wounded. Enough bows and arrows were picked up on the battlefield to fill a wagon.

In his journal Aubrey says that they were short of rations, that they had to live almost entirely on mule meat, that they had to move very slowly and that they were pursued all the time by Apaches. The Indians had quantities of gold, the value of which they knew little. Fifteen hundred dollars worth they gave in exchange for old garments the party could well spare. They used gold bullets in their guns, one old fellow loading his rifle with one large and two small gold bullets when he wanted to shoot at a rabbit. For a broken down mule, Aubrey got a lump of gold that weighed



Using a relay of six horses, Aubrey rode through hostile Indian country from Santa Fe to Independence, Missouri, in five days and 16 hours. He won more than \$5000 in bets when he not only broke a previous record but reached his goal far ahead of the time he had set for himself.

almost a pound and a half. As they steadily proceeded northeastward the roads became smooth and level, so they were able to move faster. September 25, they reached Zúñi without having lost a single man, and there found friendly treatment and plenty of provisions.

Aubrey's end was early and tragic. August 18, 1854, he returned from California, having just made the trip from San Jose to Albuquerque in 29 days. There were 60 men in his company, and they had driven a wagon the entire distance. Early on the afternoon of August 18 he went into a store kept by the Mercure brothers. Major Richard H. Weightman, from his seat in the plaza, seeing Aubrey ride up, remarked,

"Hello, Aubrey is back! I must speak to him."

As he entered the store Aubrey was having a drink at the bar. The two men shook hands in a friendly manner, and Aubrey said,

"Won't you have a drink with me?"

Politely declining, Weightman took a seat on the counter. He was a native of the District of Columbia and a West Point graduate. After the Mexican War he settled in Santa Fe, and took up the practice of law, and also edited a newspaper for a time. He was an aggressive, brilliant man—of Southern pride and temper. Later he joined the Confederacy, was the idol of his men, and fell in action at the battle of Wilson's Creek.

To return to the fatal collision between these noted men of action: their conversation had to do with Aubrey's remarkable journey from California, and with a newspaper that Weightman had been publishing when Aubrey was last in New Mexico. Aubrey asked how it was getting along, and Weightman replied that it had faded out for lack of support. Said Aubrey,

"Any such a lying paper ought not to live."

"What do you mean?" Weightman asked.

"Why," was the retort, "last fall you asked me for information about my trip, which I gave you, and you afterward abused me."

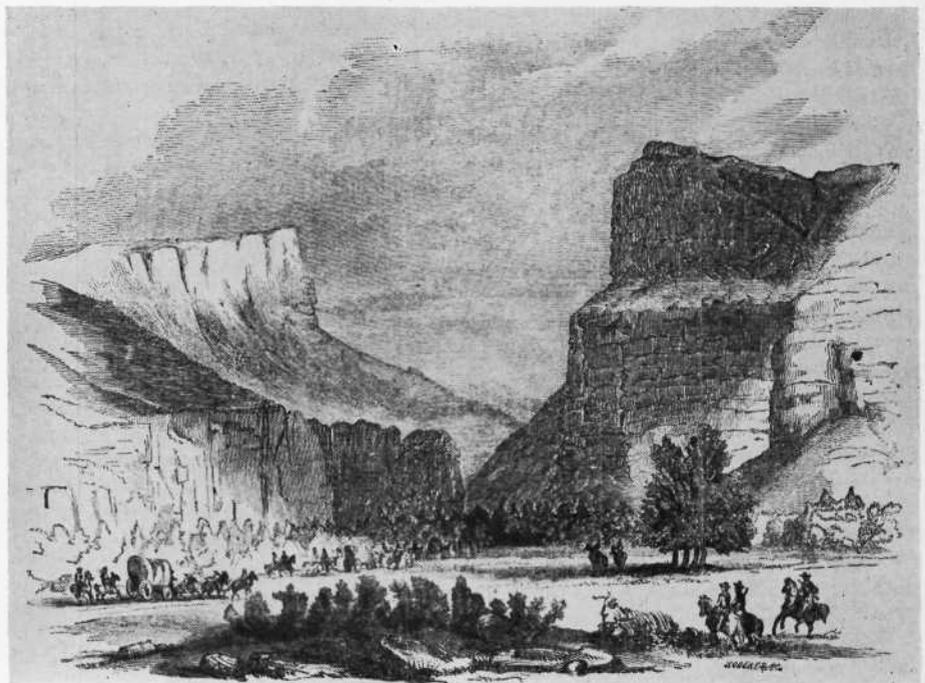
"That is not true," replied Weightman.

"I say it is so!" Aubrey thundered, as he struck the counter with his fist.

Weightman got down from the counter and snatching a glass about half full of liquor, threw the contents into Aubrey's face, and then stepping back a couple of paces, placed his hand upon his belt. Aubrey drew a Colt revolver from his left hip and, as he brought it forward, one chamber accidentally went off, the bullet

piercing the ceiling. Weightman instantly drew his bowie-knife, and the two men came together. At this instant, Henry Mercure sprang over the counter and grappled with Weightman, while his brother seized Aubrey. It was too late. Weightman had already struck his knife into Aubrey's abdomen, and ten minutes later the famous frontiersman expired in the arms of Henry Cunliffe, who had caught him as he fell.

The prosecuting attorney in the case is reported as follows in the *Santa Fe Gazette*: "This affair caused much excitement, and, as is always the case, the friends of the respective parties disagree . . . As we were the prosecuting officer before the examining court, we have no opinion of our own



Scene above is of the canyon of Bill Williams Fork, Arizona. On one of his scouting trips, Aubrey crossed the Colorado river on a raft about at this point. Engraving from "Pacific Railroad Explorations," Vol. III.

to express in reference to the matter; but will state in addition to what we have already written, that there was no evidence given upon the examination that Major Weightman drew or attempted to draw his knife before Mr. Aubrey drew his pistol. Whether the homicide was justifiable in self-defense or not, we deplore it as being a melancholy and unfortunate affair, and no one regrets its occurrence more than we do."

Weightman was accused of murder and duly tried, but was acquitted. The attorney quoted above states that Aubrey had always been spoken of "as a pleasant and agreeable man," and that he "was buried Saturday afternoon in the Parroquial church."

The Missouri Republican of September 26, 1854, says:

"We publish to-day the traveling notes of Mr. Aubrey, taken during his late trip from San Jose to Santa Fe. They contain much valuable information in regard to the country through which he passed, and they possess a melancholy interest as a record of the last journey which the daring adventurer made. A good many letters were received yesterday from Santa Fe, all of which make mention in sorrowful terms, of the death of Aubrey. It was an occurrence universally regretted, and the regret seems to have been heightened by the achievement he had just accomplished."

Parade of Desert Wildflowers

Many who are planning trips to the desert this spring already are wondering when and where they can see the best wildflower displays. While it is too early as this issue goes to press (February 1) to give much definite information, we have received several reports from both the Mojave and Colorado deserts of California. A more detailed report will be given in April issue of *Desert Magazine*.

Two factors should be considered by those looking for wildflowers: Hot winds may yet adversely affect the bloom, especially of annuals, and flowering conditions on the desert are quite localized, due to topography and weather.

In the Cronese area, in central Mojave desert, Elmo Proctor reports that a fairly mild and moist winter already has assured that locality of its usual fine display of desert lilies, and a "little more rain within a reasonable time will give us a flowery spring."

For a really good display of flowers, the Mojave area farther south and west needs another good rain or two, according to Mary Beal. She reports conditions as of February 1: Around Daggett, patches of green cover the ground from one to three inches high, higher west and north of Barstow and along Mojave river. On slopes of Ord mountains and in Bullion mountains, young plants are six to eight inches high and very numerous. Apricot mallow is starting to bloom. Between Daggett and Las Vegas (US 91) growth is luxuriant; also east of Ludlow (along and north of US 66).

For the Joshua Tree national monument, Custodian James E. Cole reports there will be few flowers in the scenic part of the area before the end of March, although in the east-

ern portion at certain locations, namely the fan leading to Cottonwood spring, the mouth of Lost Palms canyon and the canyons at the western end of Pinto basin, there should be a fair floral display by mid-March. In these places the early bloomers, such as Chia, Desert Dandelion, Encelias, Bigelow Mimulus, Desert Star and other small annuals should make quite a show. This should be a good flowering year for perennials because of abundant rains last August, and this means there probably will be a fine display of Joshua Tree flowers in April. All roads through the monument area, although not oiled, are in good condition for visitors used to dirt roads.

Around Twentynine Palms very few flowers are expected until early March, yet Mojave and Bigelow Mimulus were blooming in sheltered spots as early as January. A good display of Desert Lilies is expected here about mid-March.

While there are a few places on the Colorado desert south of Chocolate mountains where spotted rains have produced considerable green foliage, giving promise of lilies, primrose, verbena and other blossoms later, this area on the whole will have less than a normal display.

Along highway 95, the Colorado river road between Blythe and Needles, the ground late in January was carpeted with green sprouts, indicating this will be one of the few areas where late February and March motorists will find wildflower displays of exceptional beauty. Twenty varieties were blooming in Mount Signal district February 1.

Encelia began blossoming in late January, and it appears rains have been sufficient to insure a golden crop of this hardy perennial wherever it grows.

WANTED--Back Copies of Desert

To meet the constant demand for old issues of *Desert Magazine* we will pay the following prices for copies in good condition mailed to our office:

November '37 (first issue)	\$3.00
April '38	2.00
August '38	1.00
September '38	1.00
January '39	1.00
February '39	2.00
May '39	2.00
December '39	1.00
January '40	1.00
March '40	1.00
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January '45	.50
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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

LETTERS . . .

Assignment for Mojave . . .

Seattle, Washington

Dear Sir:

At the crossing of Highways No. 6 (395) and 466 is the little town of Mojave, California, and in this little town are the only remains of the early white man's activity on the desert.

They consist of a series of small adobe houses that were once the meeting place of the white settlers. In fact, I understand they made up the units of the first hotel in this region.

On account of modern buildings and sanitation, these adobe houses are allowed to go to ruin.

Can't you find enough public spirited citizens of Southern California to raise a few dollars to rehabilitate the houses? I know the folks from the North would appreciate it very much, and so would

C. A. FOSS

Rocks That Glow in the Dark . . .

San Bernardino, California

To Desert Magazine:

I am a newcomer to the West, and my work carries me through the desert frequently.

One day while driving along a desert road I saw a colorful rock lying by the trail. Its "pick-me-up" appeal was so strong I stopped, and took the rock home. Not having an opportunity to buy the usual nick-nack for my 4-year-old daughter, I decided this rock might suffice.

Suffice? I never saw her enjoy any toy as much as she liked that stone. She was constantly washing and fondling it. Then one evening as she was giving it one of those frequent baths she dropped it on the tile floor and it shattered into several pieces. She began to cry and our efforts at consoling her were of no avail. She sobbed as though her little heart had broken with that stone.

When I realized how much that rock had meant to her, I wondered what there was about it that could have such a power of attraction for her. I decided that next time I would bring home a much prettier stone for her.

About a week later I was passing through Kingman, Arizona, when I saw an Indian gem shop—and I went in to see if there were any stones. You know how it is in a shop like that. There are so many amazingly attractive rocks you cannot decide which one to buy. My curiosity turned to interest as the manager told me about the specimens on the shelves. Then, realizing I was getting my first glimpse of a new world, he took me to a little room in the rear of a shop and dragged out a box of stones that did not appear to have any special attraction. From a drawer he took what appeared to be a big flashlight. The lights were turned off and the room was in total darkness when he flashed the light on those drab-looking rocks. And it was then that I experienced one of the thrills of a lifetime. Instead of a beam of light focused on the stones, there was only a purple glow on the lens of the flashlight, while the stones in his hand suddenly began to glow with a soft and soothing effect that seemed out of this world.

He held different stones before the rays of this strange light. Each glowed in a different color. There was a cool blue that seemed to have a depth like looking into the sky at twilight. Some glowed in two colors, half translucent orange and half a radiant green. One was a rosy orange speckled with blue.

When we stepped from the dark room, he said: "Young man, if your little girl likes pretty stones, get her one of these



Howard L. Thuren and daughter—
the little girl who prizes rocks more
than dolls.

Insect of Death . . .

Winterhaven, California

Dear Desert:

The insect "chamapocha" mentioned by John Hilton in the February Desert (page 24) is the praying mantis, sometimes called devil's horse, devil's darning needle, and other names. The Mexicans pronounce the word "campo-mocha." During humid weather they are quite plentiful in some parts of the desert.

On one occasion my partner and I were compelled to abandon a mining venture when the last one of our pack animals died, supposedly from eating a campo-mocha.

T. E. ROCHESTER

Barbecue on a Texas Ranch . . .

Mission, Texas

Dear Mr. Henderson:

In answer to Mrs. Nelson's art of camp cooking inquiry, in the September issue, will be glad to tell her how we roast our meat on a Texas ranch.

First we dig a deep rectangular hole in the ground, next build a roaring fire here, then when we have a bed of live coals, cover it with bricks. Season the meat, wrap in a clean towel (preferably your newest and whitest tea-towel) next wrap this bundle in wet "tow-sacks" place on hot bricks and cover it with a piece of tin and build another fire on this tin. And keep this fire going. It takes a few hours, but by dark you will have a most delicious meat, serve with or without barbecue sauce.

Certainly enjoy reading your magazine. Every issue seems to be better than the last!

FAITH LARKIN WALTHALL

lamps and you will open up a new world that she will treasure all her life."

Riding out along the highway again I saw the desert landscape through different eyes. Every stone, I thought, was a potential glow stone. Then I recalled that the store manager had mentioned the high value he placed on his collection of fluorescent rocks—and my enthusiasm chilled a little when the thought came that perhaps those glowing rocks were too rare and costly for a modest home.

But I have just purchased the January copy of Desert—my first acquaintance with your splendid periodical. And my enthusiasm has been rekindled as I read John Hilton's "Jasper Enough for Everybody" and his mention of the beauties of the rocks that glowed underfoot.

My next purchase will be one of those magical lamps—and my next trip will be to the desert to prospect for those rocks that glow.

HOWARD L. THUEN

Boy Scouts Have Taken Over . . .

Palm Springs, California

Dear Mr. Henderson:

In accordance with your suggestion, our Boy Scout Troop 39 has accepted the sponsorship of Hidden Palms oasis, and today we began our work.

Six of the boys accompanied me and we spent six hours exploring the area and surveying the work to be done. The spring was cleaned and deepened and lined with rocks. Later we hope to build a proper

pool there, perhaps seal it over, and pipe the water out into another pool. Thus we will be able to protect the purity of the water. The boys built resting places, terraces, etc. The trail into the canyon was partially restored and markers of piled rocks placed at intervals. Catsclaw was cut away so that visitors can go down without injury.

On later trips we plan to take from 20 to 30 Scouts and start the huge task of clearing away the fallen dead frond material so as to reduce the fire hazards. Virgil and Mrs. Adair were at their cabin at the head of the canyon, and he gave the boys a talk on Indian burials, and on his feldspar claims.

M. SCOTT THOMPSON, Scoutmaster

• • •

Watch for a Compass . . .

Troy, New York

Dear Desert Editor:

In regard to J. Q. Blue's letter, printed in the January issue of *Desert*, concerning the use of a watch for a compass, it should be pointed out that this method has even a more serious limitation than that of the deviation of the watch from apparent sun time. The greater deviation is caused by the sun's movement northward in summer and southward in winter. Because of this, the error will vary in midsummer from 42 degrees at 9:30 in the morning or 2:30 in the afternoon to none at noon and 11 degrees at sunrise and sunset at the approximate latitude of Boulder, Colorado, Mr. Blue's home. At the spring and autumnal equinoxes the maximum error at approximately the same time in morning and afternoon is 15 degrees, with no error at noon, sunrise, or sunset. At midwinter, a maximum error of about 10 degrees occurs at sunrise and sunset, with no error from about 10 o'clock in the morning until 2 o'clock in the afternoon. The farther one goes north, the less this error is. But even at the approximate latitude of Troy, N.Y., the minimum summer error is 32 degrees, the maximum error at the equinoxes is 11 degrees, and the maximum winter error is 9 degrees.

Mr. Blue's letter points out the fact that further error will be introduced if the watch does not indicate apparent local sun time. Actually watches are set to the mean zone time. This will introduce a maximum error of 4 degrees for the variation of mean sun from apparent sun and a maximum error of 8 degrees for the variation of local mean time from zone mean time.

It must be emphasized that this method of telling direction is inherently inaccurate and should not be relied upon. Indeed, since errors as much as 20 degrees would be common, one could wander as far as one mile from the intended course for every three miles traveled.

LT. FOREST M. CLINGAN

TRUE OR FALSE

According to the law of averages, you ought to get half of these answers right even if you never lived within a thousand miles of the great American desert. Regular readers of *Desert Magazine* will do better than that—but a score of 15 is exceptionally good, and you can go to the head of the class if you know 18 answers. Answers are on page 44.

- 1—Sidewinders generally have fewer buttons in their tails than Diamondback rattlesnakes. True..... False.....
- 2—Freezing weather will kill the saguaro cactus. True..... False.....
- 3—Desert mistletoe never grows on mesquite trees. True..... False.....
- 4—A Navajo hogan always faces north. True..... False.....
- 5—Ironwood grows both in California and Arizona. True..... False.....
- 6—Lowell observatory is near Flagstaff, Arizona. True..... False.....
- 7—Bill Williams river flows into the Colorado river above Boulder dam. True..... False.....
- 8—Ogden is the second largest city in Utah. True..... False.....
- 9—Led by Po-pe, the pueblo Indians of New Mexico revolted against their Spanish rulers in 1680. True..... False.....
- 10—Shiprock in northwestern New Mexico has never been climbed by humans. True..... False.....
- 11—Copper is obtained in the great pit at Ruth, Nevada, by placer mining. True..... False.....
- 12—The book *Death Valley in '49* was written by W. A. Chalfant. True..... False.....
- 13—Date palms were growing wild on the Southern California desert when early Americans came to this region. True..... False.....
- 14—Timpanogos Cave national monument is in Utah. True..... False.....
- 15—Arrastre is a word associated with early day mining. True..... False.....
- 16—Motorboats are used to haul ore on the Hassayampa river at Wickenburg, Arizona. True..... False.....
- 17—In the Hopi Indian tribe, the men do the weaving. True..... False.....
- 18—Over 100 species of flowering plants grow in Death Valley, California. True..... False.....
- 19—Winnemucca was a chief of the Mojave Indians. True..... False.....
- 20—Barnacles are common in Salton Sea, California. True..... False.....

Mark of the Centipede . . .

Chloride, Arizona

I have been reading *Desert* since '38, and have seen a good many articles regarding the Southwest that I wanted to rear up on my hind legs about. But thought, oh, what's the use.

Now I am not writing this with the idea of casting any reflections on W. D. Woodson's knowledge of the centipede (January issue). I merely am going to state my own experience with the centipede.

Back in the '80s the few of us who lived in this Southwest country seldom had the opportunity of attending church. But our people did get together about once a year and hold what they called a "protracted meeting." They were held afternoon and evening and usually lasted three weeks.

While attending one of these meetings with my father and mother in 1885, mother let me sleep on a blanket on the ground at her feet. Later she saw a centipede on the calf of my right leg, and brushed it off. Well, that centipede must have resented being knocked around for he gave my leg the works. A doctor was summoned from

the crowd, and he gave my leg a treatment once a day for about eight weeks. The flesh festered away from an ugly wound about two by five inches. Eventually it healed, and today the scar has shrunk to about 7/8 by 1 1/2 inches.

If I were Mr. Woodson I wouldn't send out any invitations to centipedes to be my bedfellows.

W. J. JOHNSTON

• • •

Trail of the Vandal . . .

San Diego, California

Dear Mr. Henderson:

On a recent visit to Mountain Palm Springs, in the Anza desert, January 18, 1946, our party hiked up Surprise canyon. Of the first group of 15 palms, there are but three living which were not burned. The air was still heavy with the odor of freshly burned brush and trees.

We certainly hope your magazine can help people realize how much these scenic beauty spots mean to desert loving people. Those who do not appreciate the beauty of these old palms should stay away.

GLENN F. STRICKLAND

HERE AND THERE . . . on the Desert

ARIZONA

Pioneer Merchant Dies . . .

YUMA—E. F. Sanguinetti, 78, pioneer Yuma merchant since 1883, died December 30 at a sanitarium in La Jolla, California. Born at Coulterville, California, of Italian immigrant parents, he had come to Yuma at the age of 16, later to become not only one of the state's leading merchants but a leader in bringing about construction of Laguna dam, first on the Colorado river, and a leader in many civic enterprises.

Early Canyon Guide Dies . . .

GRAND CANYON—J. E. Shirley, 67, who had lived at the Canyon since 1906, died January 13 at Santa Ana, California. He was manager of Santa Fe Transportation company at the Canyon, in charge of Phantom Ranch, the bus tours and the famous mule caravans. His first job at the Canyon was feeding the mules at the Fred Harvey barns. E. M. (Curley) Ennis, his assistant for many years, was appointed his successor.

Crater Eruption Re-dated . . .

FLAGSTAFF — A new date for the eruption of Sunset Crater has just been established by Dr. Harold S. Colton, director of Museum of Northern Arizona. Eruption is now believed to have occurred between 1046 and 1071 A.D. In 1936, John C. McGregor, of the Museum staff, believed eruption had occurred between 875 and 910 A.D. Since that time, however, additional excavations of prehistoric Indian dwellings buried under the ash from Sunset Crater, plus information from dated timbers from the houses, and pottery, has led to revision of the date. Sunset Crater, now a national monument, is the most recent crater in the San Francisco Mountain volcanic field. (See *Desert Magazine*, February 1946).

• • •

The Coconino Sun, one of Arizona's oldest newspapers, was sold January 1 to W. J. McGiffin of Beverly Hills, owner of a string of midwest newspapers. Columbus P. Giragi, publisher of the Sun since 1932, retired because of ill health.

Desert Lodge RANCHO BORREGO



In the restful Borrego Valley at the foot of the San Ysidro and Santa Rosa ranges, is preparing to open December 15th for its 8th season.

An informal American Plan guest ranch with the open hearted hospitality of early California days.

Reservations are being accepted for December and January.

Write

NOEL and RUTH CRICKMER
Borrego — Julian P. O. — California

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DESERT GOLF



For information and rates write to Chamber of Commerce, Las Vegas, Nevada



THE DESERT TRADING POST

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

MISCELLANEOUS

"SPRINGTIME IN THE DESERT" 2 x 2 Color Slides. Beautiful desert flowers and flowering shrubs in their full natural color make up this 16 view set. Price \$8.00. PHILP PHOTO VISUAL SERVICE, 1954 Pasadena Avenue, Long Beach, California.

ONE CUT RUBY ring set to trade for one Ruby crystal. Gem quality not necessary. Must be perfect crystal shape. Mrs. Earl Pew, General Delivery, Trinidad, California.

\$2.00 SPECIALS, Archeological—1 Stone Celt, 1 Flint Celt, 1 Shell Spoon, 2 Pottery Sherds, 3 Arrow Points, \$2.00. FOSSILS—2 different Fern Leaf, Types, 3 Blastoid or Crinoid Flower Buds, 2 different Plant Leaf, Types, 3 Crinoid Stems \$2.00. MINERALS—9 different colors of Fluorite and other Minerals found in the Kentucky-Illinois district, \$2.00. All three above assortments \$5.00 delivered. ANCIENT BURIED CITY, Wickliffe, Kentucky.

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.

WESTERN BOOKPLATES. Novel, individualized. \$1.00 per hundred. Send dime for samples—deductible from order. The Trading Post, R.F.D., Evergreen, Colo.

SWAPPING GUNS is as easy and economical as trading in your car. Try Klein's simple Trade-By-Mail plan. Write today, fully describing your gun. By return mail, we will quote our highest "Blue Book" Cash or Trade Offer. We Pay More, Sell For Less. Send 25c (refunded first order) for "Guaranteed Bargain Catalog" and current Swap List. Klein's Sporting Goods, Key South Halsted, Chicago 7, Illinois.

DESERTATIONS: Wun banker I know is so dern persnicketty he won't not do no bizness with enny one 'ceptin' a pusson o' note. Wun thing I want to make note uv ryte now is the excellent desart painted fotograffs they has at the DesArt Shop, at 329 College St., in Santa Fe, N. Mex. They also, too, er fixed so's they kin do most enny kind o' photo services fer y'u desart fotograffists y'u might want er need. Jist ryte 'em about it, er call on 'em when yer aroun' this way. Y'u'll be more th'n pleezed, Ime sure. Azzever yourn, Art of the Desert.

"CLIMBING MOUNT WHITNEY" 2 x 2 Color Slides. This brilliantly colorful 18 view set takes you from desert base to the top of United States' highest peak. Price \$9.00. PHILP PHOTO VISUAL SERVICE, 1954 Pasadena Avenue, Long Beach, California.

INFORMATION: What do you want to know about the Colorado desert, SW Arizona, SE California? Rocks, minerals, mines, travelways, waterholes, flora, wildlife, etc. Also Colorado River fishing information. An old Desert Rat will give you reliable information. Personal letters \$2.00. Address Desert Rat, Box 356, Winterhaven, Calif.

TOTEM POLES, Alaska and British Columbia, 3 to 12 inches — 75c to \$10.00 postpaid. Northwest Indian Novelties, 2186 N. W. Glisan, Portland 10, Oregon.

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ARIZONA HIGHWAYS, Deserts, National Geographics, other magazines, bought, sold, traded. John Wesley Davis, 1611½ Donaldson St., Los Angeles 26, Calif.

GOLD PANNING for profit, healthy, fascinating, outdoor occupation. Beginners' big instruction book, blueprints, photograph — \$1.00. Desert Jim, 208 Delmar, Vallejo, Calif.

GIFT 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.

We sell Nationally Recognized Fur Producing Karakuls. Have permanent market for wool and furs. Attractive investment for rancher or city investor. James Yoakam, National Distributor, 1128 No. Hill Ave., Pasadena, California.

DESERT SUNSHINE makes healthy poultry. Hampshire Cross pullets ready to lay shipped anywhere 6 for \$15.00. Crating free. Grail Fuller Ranch, Daggett, Calif.

REAL ESTATE

DESERT AND MOUNTAIN land, 681 acres, 9 miles from Palm Springs in the Snow Creek Area, at the foot of Mt. San Jacinto, part rugged country, part level. Just like nature made it, no work has ever been done on it. There is a little canyon with 16 big palm trees, two small springs. Another rugged canyon with sycamore trees. This place about two miles off main highway, over a desert road. If you want quiet and seclusion, a place for a dude ranch, a health resort, or even a turkey ranch, this place is ideal. It is not suitable for general farming. There are no buildings, but plenty of rock to build with. Full price, \$6500 Terms.—604 acres of mountain land on main highway to Joshua Tree National Monument and Twenty Nine Palms. The highway runs diagonally thru this section of land making about 1½ miles on both sides of the highway. The mountains are beautiful and an ideal setting for cabins, gas station, eating place or trading post. Full price \$7000, terms. Might consider selling part. See owner. F. J. Pearl, 240 Willow Ave., Baldwin Park, Calif. Phone 671-16.

For Imperial Valley Farms—

W. E. HANCOCK
"The Farm Land Man"
Since 1914

EL CENTRO — — — CALIFORNIA

Warrior Homecoming Celebrated . . .

ORAIBI—This oldest continuously inhabited community in the United States on January 11 hailed the homecoming of its Hopi warriors with a banquet and Victory dance. About 50 of the tribesmen have returned with discharges, of the 264 who went to war. They and their Navajo neighbors were used to great advantage in combat with Japanese. The marines used them to transmit verbal radio orders in combat with their guttural and virtually un-decodable language. Oraibi is 60 miles northeast of Flagstaff, the nearest railroad point. It has been inhabited since the 14th century.

Mrs. Evelyn Smith, secretary of Yuma County Chamber of Commerce since 1934, resigned her position effective January 1.

V. P. Richards, publisher of Holbrook Tribune-News and Winslow Mail, in January was named president of Arizona Newspaper Publishers association.

David J. Jones, Jr., recently released from Army Air Corps, is back at his post as custodian of Wupatki monument, near Flagstaff.

CALIFORNIA

April is Valley Roundup Time . . .

EL CENTRO—Imperial Valley roundup association has set April 5, 6 and 7 for its second annual American Rodeo association event. Each chamber of commerce in the county is expected to participate in the rodeo observation, including Western garb, vigilantes, kangaroo courts and other festivities. E. George Luckey of Brawley, cattleman and former state senator, is this year's roundup president.

Desert Canaries Rescued . . .

TRONA—A quintet of would-be cowboys who rounded up ten burros in Bruce canyon, adjacent to Homewood canyon, and had loaded them into trucks, had their plans shattered by a sheriff's deputy who made them give up their prizes. When the sheriff arrived on the scene, the "cowboys" were ordered to return the burros to their desert home and to refrain, in the future, from molesting "desert canaries."

Ramona Play Starts in April . . .

HEMET—Ramona Pageant association has named Adrian Awan of Hollywood as executive producer of the 1946 season of the famed Ramona Outdoor play. Mr. Awan has been director of the Pilgrimage play of Hollywood the past two years. He has been connected with the Hollywood Bowl Symphonies for ten years and was producer of California State fair pageant at Sacramento. His organization includes Jean Innes (Mrs. Victor Jory) as director. Victor Jory will assist his wife. Dates are April 27 and 28, May 4 and 5, May 11 and 12.

Rockhounds Will Like This . . .

RANDBURG—Plans were discussed in January for improving the Desert Museum here. Under chairmanship of Paul Hubbard, newspaper publisher, committee made following suggestions: landscaping approach to museum with sugar quartz, flagstone and cement, using four old drilling rocks reminiscent of early day miner's contests as corner stones; a walk and curb in front of building utilizing native flagstone; installing rock and cactus garden. A new feature of the interior is a geological wall map, which is an enlargement of the government quadrangle of the desert area of Rand district, Indian Wells valley and Searles lake. Map will be mounted on the wall and a large table of local minerals will be traced by colorful cords to their locations on the map.

George W. Savage, co-publisher of Inyo Independent, at Independence, Owens Valley Progress-Citizen at Lone Pine, and Inyo Register at Bishop, sold his shares in the business to Roy L. French, Alhambra, it was announced January 9.

Sylvan E. Williams of Victorville, in January became editor-publisher of The Desert Star, Needles weekly newspaper. Former publisher Charles K. Dooley of Colton will devote his full time to the Colton Courier.

F. Leslie Ferris, newspaper man of Topeka, Kansas, is new owner and publisher of the Indio Date Palm, which he purchased in January from Norman H. Parks, publisher since 1941.

NEVADA

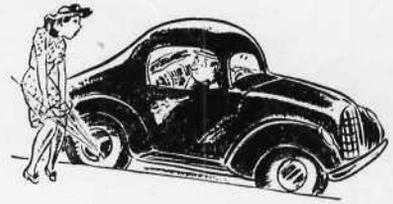
Hellorado to be Filmed . . .

LAS VEGAS—Hellorado, Las Vegas' annual western celebration which will observe its twelfth anniversary in May, definitely will go into the movies, it was announced January 25 by John P. Cahlan, exalted ruler of Las Vegas lodge of Elks, sponsors of the fete. Picture will star Roy Rogers. Cast will arrive here early in May to take outdoor scenes and will remain for the celebration, to film the parades and rodeo shots.

Too Many Workers Here . . .

LAS VEGAS—Because of nationwide publicity relative to construction of Davis dam on the Colorado river, many workers have been arriving here prematurely, expecting jobs. But they are finding themselves "stuck without sufficient funds to carry on until the actual jobs open up," stated John J. O'Leary, manager Las Vegas office of US employment service. He said hiring to any large extent probably would not start before May, and probably a maximum of not over 1500 would be needed after that date.

WIND-BLOWN



Some time ago, when you and I were young McGee, they used to speak of the tired business man.

But for the past four years, the business man — or any other kind of motorist—hasn't been very well tired.



During that strained interlude brought about by the war, the family garage was a car concentration camp.

Gasoline was few and far between. Practically every car was equipped with a stationary engine.



Another reason for garage-bound cars was the possibility of wind-blown tires.

Even if a person did happen to come by a gill of gasoline, his tread-bare casings had a way of losing their breath at the most embarrassing moments.



Present rubber shortages provide the Shell Dealer with an opportunity to do a good turn for his customer.

He adopts inflationary measures for his customers' tires.

He inspects the casings carefully. And he recommends re-capping before the tread wears clear down to the air.

— BUD LANDIS

March in Albuquerque

Sunshine 74% of Possible Amount
15 Clear Days, 10 Partly Cloudy, 6 Cloudy



Daytime Temperature 61.3°
(Average Daily Maximum)



Nighttime Temperature 33.1°
(Average Daily Minimum)



Rainfall .38 Inches
Average Daily Humidity (8 P.M.) 32%

Albuquerque is still so overcrowded that we are urging everyone to WAIT a while before coming to enjoy our climate, but we will be glad to send our free booklet to help you plan to come later. Use the coupon below.

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Dept. D 6, Albuquerque, New Mexico
Please send your free booklet to:

Name.....
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Heart of Death Valley.

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BAR

MODERN ACCOMMODATIONS
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On Highway 78—35 miles east of
Julian. Land by plane on dry lake
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For Reservations Phone . . .

M. W. Scott, Ocotillo, through
El Centro Exchange—or write
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men, women, children.
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Please send _____ pairs Huaraches
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The OLD MEXICO SHOP
SANTA FE, NEW MEXICO

Pyramid Lake Being "Mined" . . .

RENO—Using land leased from Indian bureau on royalty basis, Lodi Fertilizer company, California, plans increased production of calcareous marl from vicinity of Pyramid lake for use by California and southern Arizona fruit growers as a conditioner and sweetener of soil. Seat of enterprise, it was announced, will be Zenobia. Minimum production of 20 cars daily is anticipated. Company, subsidiary of Sanguinetti Fruit company, has 400 acres under lease in Pyramid Lake area and 470 acres in private holdings in Sand Pass area. According to Reno Evening Gazette, organic origin of these deposits causes rapid disintegration and consequent solution of the available calcium carbonate upon application to the soil—an effect more immediate than that of inorganic calcium carbonate or limestone. Mining is by open cut method.

• • •

Boulder City Broadcasting company in January was granted a permit to operate radio station at Ely on 1230 kilocycles and 250 watts.

• • •

Dr. George W. Sears, head of department of chemistry at University of Nevada and faculty member since 1917, has been chosen candidate for national council of American Association of University Professors, the first University of Nevada professor so honored.

• • •

American Livestock association, at annual convention in Denver, Colorado, in January, elected William B. Wright of Death, Nevada, as president, to succeed A. D. Brownfield of Deming, New Mexico.

NEW MEXICO

Bomb Site Monument Proposed . . .

SANTA FE—Governor Dempsey reported in January that Secretary of Interior Ickes has recommended 3531 acres near Alamogordo be set aside for a national monument at site of the first atomic bomb explosion. "The boundary recommendations have been carefully determined in order to include in the proposed monument no more land than is required for satisfactory preservation of the actual site of the explosion and two subsidiary locations which are significantly related to it," the secretary wrote.

Plan for Bighorn Comeback . . .

SANTA FE—State game department is considering a proposal to place a few Canadian mountain sheep on the Joe McKnight ranch, about 40 miles west of Roswell, an official announced in January. Canadian bighorn sheep would be used to restock areas of the state where they have been exterminated. McKnight, who raises game animals as a hobby, has raised deer, elk, African bighorn and antelope over a period of more than ten years.

Irrigation Project Progresses . . .

TUCUMCARI—More than \$500,000 worth of contracts for earthwork and structures on Conchas and Hudson canals of Tucumcari reclamation project have been approved by Secretary of Interior Ickes. Contracts went to Clyde W. Wood, Inc., Los Angeles, and A. S. Horner company, Denver. Under these contracts the two canals will be extended to make water available to an additional 21,000 acres. Remaining 17,000 acres of the 45,000-acre project will be brought into production in 1947, the bureau said.

BY BOAT into the heart of the Southwest's most scenic canyon country with Norman Nevills

A limited number of reservations are now being made for the 1946 Nevills expeditions down the San Juan and Colorado rivers—191 miles in seven days. Special-built river boats, skilled boatmen, good food and sleeping bags for all passengers.

Boats start from Mexican Hat, Utah, on the San Juan, and complete the trip at Lee's Ferry on the Colorado. Arrangements will be made to have your car driven from Mexican Hat to Lee's Ferry. Sidetrips include:

Crossing of the Fathers, Music Temple, Mystery, Twilight and Hidden Passage Canyons, Outlaw Cave and the famous Rainbow Bridge

For schedules and rates write to . . .

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" . . . A river trip with Norman Nevills is more than a mere boat ride. It is a flight on a magic carpet of adventure into a canyon wilderness of indescribable beauty and grandeur."

—DESERT MAGAZINE

New Mexican Fleece Wins . . .

ALBUQUERQUE—Sixty New Mexican fleeces entered in annual inter-state wool show, held in connection with National Western Livestock show in Denver, won 41 ribbon and cash awards in January, in competition with fleeces from six states. Grand champion fleece of the show was grown and exhibited by Downing brothers of Capitan, Lincoln county.

Centennial Coming Up . . .

SANTA FE—A postage stamp which would honor centennial of Gen. Stephen W. Kearney's proclamation of August 18, 1846, proclaiming New Mexico a part of the union, was proposed in January by Paul A. F. Walter, Santa Fe banker and president of New Mexico Historical society. Since Arizona and Colorado were a part of New Mexico at the time, Walter suggested that congressmen of the three states urge issuance of a centennial stamp.

M. L. Woodard, for past ten years secretary Gallup chamber of commerce, resigned in January to devote full time to his position as secretary of United Indian Traders association and Inter-Tribal Indian Ceremonial association. He was succeeded by Frank H. Holmes, Jr.

New Mexico state fair dates have been set for September 29-October 6, 1946.

John M. Davis, assistant superintendent of Grand Canyon national park, has been transferred to Santa Fe as assistant regional director, M. R. Tillotson, regional director of national park service, announced in January.

UTAH

Huge Mining Grants Made . . .

SALT LAKE CITY—Kennecott Copper corporation in January announced research grants totaling \$250,000 to University of Utah and Utah State Agricultural college. University of Utah grant of \$200,000, to be known as the "Kennecott Copper corporation contribution for research and study in connection with metal mining," carried with it the request that the university direct research to further improvement of prospecting by geophysical and allied methods. D. D. Moffat, vice-president of Kennecott and president of Utah Copper company, a Kennecott subsidiary, emphasized the importance of these methods since prospectors have pretty thoroughly combed the state by surface prospecting. He also spoke of the desirability of graduating more engineers from the university's mining school, stating, "Progress in either field will assist in further development of metal mining in Utah, provide more jobs, and enlarge the home market which mining provides for the state's agricultural and manufactured products." The \$50,000 college grant, to be known as "Kennecott Copper corporation contribution for research in the application of mineral products to agricultural purposes," requests that the college commence experiments to determine whether small amounts of minerals fed directly, or through the medium of plant food, might assist animal development.

National Editorial association announced in January it would hold its annual convention in Salt Lake City in 1950.

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1 packet 20 varieties
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P. O. Box 408 Las Vegas, Nevada

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.

Rockefeller Plans Park Gift . . .

SALT LAKE CITY—A large part of John D. Rockefeller Jr. land holdings in Jackson Hole, Wyoming, in January were transferred to Jackson Hole Preserve, Inc., non-profit corporation, said Harold P. Fabian, executive vice-president and treasurer of the corporation. Purpose of the corporation, of which Laurance Rockefeller, son of John D. Rockefeller Jr. is president, is to develop the property for public benefit, as was contemplated originally when the land was purchased. Announcement reiterated there has been no change in plan to give the lands ultimately to the federal government for national park purposes, when the following broad objectives can be worked out: ". . . Exclusively charitable, educational and scientific. To restore, protect and preserve, for the benefit of the public, the primitive grandeur and natural beauty of the landscape . . . To provide for the protection, feeding and propagation of wild game in such areas, to maintain and develop historic landmarks and other features of historic or scientific interest in such areas, to provide facilities for the public use, understanding, appreciation and enjoyment of the scenic, biologic, scientific and historic features of such areas."

Utah leads all states in education per capita, yet trails in income. Seventeen per cent of Utahns over 25 years of age have some college training, 6.1 per cent have college degrees, compared with a national average of 10 per cent with some college education and 4.6 per cent with degrees. Of Utahns in 14-19 age group, 62.9 per cent are high school graduates, while only 47.9 per cent of nation have graduated from high school.

GLADIOLUS ASSORTMENT \$1.50

20 No. 1 size (1½") bulbs postpaid.

FREE Bulb price list and how to EARN \$2000 growing gladiolus on city lot with small capital.

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NON-RATIONED . . .

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SHOES**

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LOS ANGELES, CALIFORNIA

Imperial Irrigation District's Publicly-Owned and Operated Power and Water Systems are the Factors Responsible for the Development of the Rich Imperial Valley . . .

In 1944, the Imperial Valley produced a variety of crops and livestock valued at \$61,706,241.

While data is not yet available, it is expected that the 1945 valuation will equal or exceed that of the previous year.

NOW—that War Restrictions have been lifted, greater development plans can be carried on—

—Thousands of acres of agricultural lands, located on Imperial Valley's East Mesa, will be avail-

able for settlement—just as soon as the lands are released by the Department of the Interior. War veterans who have a priority on these lands, are battling to have them thrown open for development, as guaranteed by the Boulder Canyon Project Act . . .

—Keeping pace with the agricultural growth of the areas it serves, is the District's electrical system whose power lines keep farms and businesses running in an area as big as the whole State of Maryland—

On December 13, the people of the Imperial Valley overwhelmingly approved a \$6,200,000 revenue bond issue for additions and improvements to their power system—

THEIR APPROVAL ASSURED EVERY COMMUNITY AND EVERY FARM IN THEIR AREA OF ALL NEEDED ELECTRICAL POWER FOR FUTURE GROWTH, WHICH MEANS CONTINUED PROGRESS!

Imperial Irrigation District



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

GEMS AND MINERALS

ARTHUR L. EATON, Editor

ADDISON GRAND PRIZE WINNER IN SAN JOSE LAPIDARY SHOW

First annual show of San Jose Lapidary society, held at the Armory in San Jose, California, January 19 and 20, was successful in both size and quality. Saturday's total attendance was 1020, and on Sunday 2257 persons from many points in the state, saw the exhibit of more than 9000 pieces of polished material, jewelry and specimens. This was the first exhibit in northern California of amateur skill in cutting and polishing gems.

Prize winners are as follows:

Grand Prize, best exhibit in the show: R. M. Addison.

Flats: 1-W. Reinhart; 2-Dr. A. J. Case; 3-Mr. and Mrs. J. Robert Elder.

Novelties: 1-Dr. A. J. Case; 2-E. Robbins.

Cabochons: 1-R. S. Grube; 2-A. Maudens; 3-D. J. Burrige.

Facets: 1-E. Robbins; 2-B. A. Holmes.

Cameos: 1-R. M. Addison.

Jewelry: 1-Mrs. O. L. Heller; 2-R. M. Addison; 3-Mr. and Mrs. J. Robert Elder.

Santa Clara county material: 1-H. Stockton.

Working 2 years or less: 1-Otto Ehlers; 2-Mrs. R. S. Grube.

Judges were: Jack Wright, managing editor San Jose Evening News; Al Jarvis, commercial lapidary, Watsonville; H. T. Renton and W. Kane, Northern California mineral society, San Francisco, and W. C. LaRue, East Bay mineral society, Oakland.

BEILBY PROVED POLISH DUE TO SURFACE FLOW OF SOLIDS

The following item by E. P. Van Leuven is quoted from Mineral Notes and News, official publication of California Federation of Mineralogical societies.

Sir George Thomas Beilby worked out the

idea of surface flow of solids between 1900 and 1914 and thoroughly expounded the principle in 1921 in his book, *The Aggregation and Flow of Solids*. It is regrettable that at this late date, many are so unenlightened or obstinate as to doubt the practical idea of molecular movement on the surface of a solid, and that it is the rearrangement or movement of surface molecules, and not their removal that produces a polish on the surface of most types of solids.

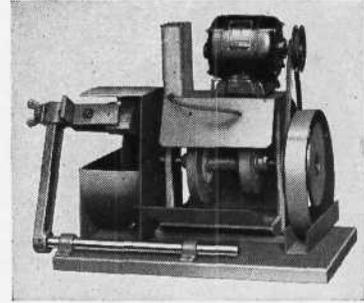
Beilby proved in thousands of cases on metals and minerals that when the final polishing stage is reached a freedom of movement is conferred on the surface molecules which enables them to behave like liquid molecules. This permits them to move into pits and scratches filling them up and/or bridging them over into a continuous skin comparable in smoothness to the surface of a liquid. By etching away the polished surface he repeatedly exposed the original pits and scratches beneath the surface skin, proving that the surface film had covered them over. This could not happen unless the surface was in a state of complete fluidity for a measurable depth and for a finite period of time. The forms assumed by the surface are determined, as in a viscous liquid, by surface tension. His microphotos show the film at various stages spreading over the surface like a coat of liquid paint. He showed that on the smaller pits the film had carried across the empty pit without any support from below. The film seemed to build out from the edges of the pits until they were finally bridges, while other pits were filled up.

Some scientists contend that the surface flow is caused by a local fusion or melting at the instant projecting particles on the nearly plane surface spread as a liquid-like layer. To date, no means has been made available to examine this action and only the results are obtainable. Since the acceptance of the idea the film has been called the "Beilby layer," in honor of him who conceived and proved the principle.



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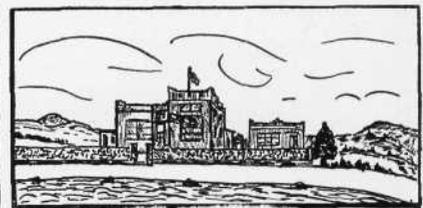
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Special — Colorado Plume, Agate, sawed slabs from \$1.00 to \$30.00, on approval. New find, none better.

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CHOICE CRYSTALS, Rough Gem material, Pre-form cabochons, Slabs, Pacific catseyes, Fossils, Lapidary and Silver work. Tri-State minerals, hundreds of specimens .25 up. Get acquainted offer, Send \$1.00 plus postage and tax for approximately 5 square inches Wyoming Jade. **STAMP BRINGS 1946 CATALOG. GRAFFHAM'S COMMERCIAL MUSEUM,** 421 Ash, Ottawa, Kansas.

WE ARE OFFERING banded Rhyolite from the famous Nevada Wonderstone mine, for sale in two varieties. The gem stone variety is widely used by lapidaries for making jewelry, bookends and miscellaneous ornamental items. The building stone variety is now being used by contractors and home owners for fire-places and building facings, patios, stepping stones, fish ponds, swimming pools and flower garden arrangements. There is no stone in the world that has more lines of assorted colors and designs than Nevada Wonderstone. Write for prices. State item desired. Carroll L. Perkins, Box 1128, Tonopah, Nev.

STERLING SILVER ladies' and men's ring mounts, reasonably priced. Satisfaction guaranteed. Send for bulletin. Fremont Gem Shop, 3408 Fremont Ave., Seattle 3, Wash.

WE ARE MOVING to Utah and will be unable to do your silver and gold work for a couple of months. Watch these pages for announcement of our new location. K. K. Brown, Castle Rock, Wash.

BARGAIN ASSORTMENT No. 3-1 cutting amazonite. 1 sagenitic agate. 1/2 large geode ready to sand and polish. 1/2 Montana agate polished on one side. 1 Oregon agate nodule. 1 Idaho nodule. 1 chunk banded silica onyx. 2 petrified wood chips with moss. 1 roughed out moss agate cabochon. Enough turquoise to make 4 cabochons. All for \$3.00 plus postage on 6 pounds. West Coast Mineral Co., Box 331, La Habra, Calif.

CHOICE MINERALS for your collection. Clear gemmy apatite crystals from Mexico 25c to 75c. Showy Wulfenite XLS from Mexico 25c to \$5.00. Vanadinite from Arizona 25c to \$2.00. Mail orders only. Gaskill, 400 No. Muscatel, San Gabriel, Calif.

FERN ROCK, 10 lbs. \$2.00, 10c per lb. in 100 lb. lots. Onyx, very highgrade, 10 lbs. \$1.50, 7c per lb., 100 lb. lots or more. Wirt, Box 351, 29 Palms, Calif.

WESTERN GEMS, in gold or silver mountings. Rings, brooches, pendants. Wholesale. Approval selection at your request. North West Gem Shop, Box 305, Tacoma 1, Wash.

PETZITE (Silver-gold telluride). Lustrous masses of this rare mineral in matrix. Excellent specimens for \$5.00, \$7.50 or \$10.00, according to richness. Postage extra. H. Goudey, Box 529, Yerington, Nevada.

OLD TREASURE MAPS interpreted \$10.00. New Mexico moss, mottled, ribbon agate, \$1.00 per lb., red, peach and carnelian \$4.00 per lb., no matrix. Flaming Arrow, Lake Arthur, New Mexico.

LADIES HAND EXECUTED Silver Rings —from agate and other stones \$2.50 to \$5.00. Your cut or uncut stones may be used in mountings designed to fit any style cabochon cut stones you send or from our collection. List free. The Multicraft Shop, 1001 Englewood Ave., St. Paul 4, Minn.

SIX FOR FIVE: 1 Blue-green Bauxite \$1.00, 1 Diamond Bearing Rock \$1.00, 1 Wavellite \$1.00, 1 Variscite \$1.00, 1 Novaculite \$1.00, 1 Botryoidal Siderite \$1.00. Choice Specimens. All for \$5.00 postpaid. THOMPSON'S STUDIO, 385 West Second Street, Pomona, Calif.

RARE AND BEAUTIFUL, Arizona agates, jaspers and petrified wood. Gem quality with ferns, moss, flowers, trees and scenic views. Pictures are easy to see, go all the way through each rock, colors are bright to dark in just about all shades of reds, greens, orange, purple, yellows, these colors come mixed and some times you can find many colors in one slice, some have pink and some mixed with clear and white. Prices are number one gem: Gem agates, gem geodes, gem Jasper and petrified wood 20 mixed slices \$25.00, 50 mixed slices \$50.00. 2 pounds \$6.50, 5 pounds \$15.00, 10 pounds \$25.00, 35 pounds of gem and specimen petrified wood agate and jaspers \$15.00. 50 ancient pueblo Indian chips for \$8.50. Send for price list. All postage and express extra. Satisfaction Guaranteed. Chas. E. Hill, 2205 N. 8th St., Phoenix, Ariz.

PHILIPPINE GOLD Specimens. These specimens are not nuggets, but rich in gold, in quartz matrix containing pyrites. Some show good XLD gold and gold leaf; others fine disseminated gold dust. Smaller specimens are excellent for micromounts. Prices are governed by quality rather than size, averaging 1/4" to 2", priced \$1.00 to \$25.00. FRANK DUNCAN AND DAUGHTER, Box 63, Terlingua, Texas.

NEPHRITE JADE in blank cabochons, black, olive and dark green, 16x12 mm \$1.00 each. Rare quality apple green 16x12 mm, 18x10 \$2.50 each. Postpaid. Satisfaction guaranteed. Write for prices on quantity and finished cabochons. J. W. Carson, Bridgeville, Calif.

VARISCITE—Good gem quality, works like Turquoise, \$3.50 per lb., or \$1.00 to \$5.00 per slice. Polish with Cerium Oxide \$2.50 per lb. **DIAMOND TOOL**—Cubed diamond set in steel holder for truing grinding wheels, etc., a necessary item for cutters, \$7.50. A. L. Jarvis, Route 2, Box 350, Watsonville, Calif., 3 mi. S. on State Highway No. 1. Closed on Wednesday.

FINE PAPERWEIGHTS or cabinet specimens cut and polished from many types of materials. Featuring Tunstella slabs from Central Texas Fossil beds. Special price to dealers. Sent on approval. Correspondence solicited. Clay Ledbetter, 2126 McKenzie Ave., Waco, Texas.

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MINERAL SPECIMENS of all kinds. Collections for museums and students. Micro-mount mineral collections. Rocks and minerals by the pound or by the specimen for display, study and research. H. Goudey, Box 529, Yerington, Nevada.

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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.

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ASBESTOS IN SERPENTINE MATRIX. 2x2—.75, 3x3—\$1.00, 4x4—\$1.50. Also Texas Agates and Arizona Onyx—for spheres and bookend cutting. Banded and very colorful. Prices on request. Leo R. Quinn, Rt. 4, Box 562, Phoenix, Arizona.

\$2.50 brings you prepaid six rare and beautiful crystallized Arizona minerals. Vanadinite, Diopside, Wulfenite, Willemite, Chrysocolla, Azurite. Specimens 1 1/2x2 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.

AGATE SLABS ON APPROVAL. Brilliant colors, exquisite patterns, plume, flower and moss. Choice gem quality for jewelry making. End pieces and slabs for outstanding cabinet specimens and colorful transparencies. Send \$10.00 deposit for approval selection and state types desired. Mae Duquette, 407 N. Muscatel, San Gabriel, Calif.

JUST RECEIVED a lot of fine Amazonite crystals from eastern Colorado. A few clusters but mostly singles. \$10c to \$1.00. Colorado Gem Co., Bayfield, Colo.

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.

WANTED TO BUY, or trade for Franklin fluorescent minerals. Western States crystallized or rare minerals. Also iron meteorites. John S. Albanese, P. O. Box 536, Newark, New Jersey.

ANDRESITE—SOMETHING new and different from the San Andres Mountains. Cutting material \$25 lb., \$7.50 1/4 lb., \$1 for cutting sample. Vein run specimens—75c lb. Money refunded if not desired. The American Fluorspar Group, Inc., Santa Fe and Hot Springs, New Mexico.

SHELL JEWELRY. Learn how to make at home. Special Beginners Outfit, plenty for 25 pieces, includes equipment, shell and instructions, for \$5.00 postpaid. Write for our new price list of American Gem Cutting Material. The Gem Exchange, Lake Bluff, Ills.

WHOLESALE ONLY: Lazulite, Agate Wood, Nevada Agate, Nevada Variscite, Obsidian, black, Obsidian, black and red. Amygdeloids, Carnelian, Travertine, Death Valley Onyx, Lone Mt. Onyx, Paymaster Onyx, Death Valley Carly, Box 495, Goldfield, Nev.

ROCK COLLECTORS ATTENTION: When you visit the Desert this spring look for the **ROCKOLOGIST**, one mile east of Cathedral City, California.

Mrs. Wm. H. Bacheller of Willcox, Arizona, reports finding petrified coral and other fossils on a field trip in the Willcox district in January.

The January 19 meeting of Imperial valley gem and mineral society was held in the basement of the county court house El Centro. After a brief business meeting and reports on field trips to the Picacho region, Earl W. Martin of Ann Arbor, Michigan, took over the program. He spoke for some time on the interest and vicissitudes of mineral collecting, both as amateur and professional. He then displayed his stock of rare minerals, such as Rosiclare fluorite, ruby, zinc, needles of selenite, dog tooth spar, higginsite, mica with garnet and other inclusions, odd crystals of galena and many others. Many members took the occasion to buy specimens to enrich their own collections.

Gem Stone Collectors of Utah, Salt Lake City, held their first meeting, January 10, 1946, in the Salt Lake city and county building. Officers elected were: T. Frank Nelson, president; Jess Abernathy, vice-president; Ila M. Nelson, secretary; Mose Whitaker, treasurer. The purpose stated for the organization is to further interest in gem cutting and polishing in Utah.

Umpqua mineral club, Roseburg, Oregon, announces the following officers elected January 9: Alvin M. Knudtson, president; Clair L. Pettit, vice-president; Hilda Peterson, secretary-treasurer; Everett Teater, federation director. Committee heads chosen were: Leslie Roberts, program and entertainment; Jack Wharton, field and research; Marjorie Pettit, 1018 Winchester St., publicity and membership. Each member present responded to roll call with a short talk on some subject dealing with the club's welfare. Jack Wharton put on a colorful display of fluorescents with his radarlite.

A. O. Phipps, secretary of Texas mineral society, reports that at the January meeting the club enjoyed a series of colored slides of rare and outstanding crystal group specimens owned by Colorado collectors. Some of the crystals were collected years ago, and since then the localities have been destroyed or forgotten.

Imperial Valley gem and mineral society made an impromptu field trip to Black mesa, north of Ogilby, to show Mr. and Mrs. Earl W. Martin, of Ann Arbor, Michigan, how western rockhounds obtain specimens. Although this is one of the most easily accessible fields in the desert, it seemed a rough and tortuous road to the visitors.

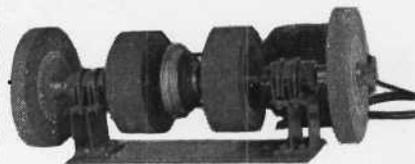
Mineralogical Society of Arizona scheduled two interesting meetings for January: S. S. Turner, U. S. geological survey, on Arizona's most valuable mineral, water, and Ben Humphreys on the eruption of Santa Maria volcano. A field trip was planned for January 13 to Skunk creek for agate and jasper.

Moe Leonard reported on the Federation convention at January 16 meeting of Searles Lake gem and mineral society. The group laid plans for their fifth annual '49er party for January 26 in Trona club, 2 p.m. to 2 a.m., admission by 50 cents, "payable in coin, currency, gold dust or butter."

Dr. John T. Lonsdale of Austin, director of bureau of economic geology, University of Texas, predicted in a speech before Dallas geological society that Texas faces the dawn of a new era of industrial prosperity based on development of nonmetallic resources. One such is glass sand. Bureau of economic geology needs a larger staff and more equipment to make a detailed survey of natural resources of the state.

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1 in. ARBOR 31 in. LONG
2 3x8 DRUM SANDERS

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AMONG THE ROCK HUNTERS

Membership of Monterey Bay mineral society, Salinas, California, has reached 58. At its sixth meeting, held in December at Salinas YMCA, a mineral auction followed a potluck dinner. Auctioneer V. E. Schoonover assisted by president W. O. Eddy sold many beautiful specimens, some of which had been donated, others sent by dealers on consignment. Pacific Grove museum gave the club 50 per cent of auction returns from its specimens sent to the meeting with Pat Clark.

New officers of Tacoma Agate club, Tacoma, Washington, are: Charles Wihle, president; Bertha Reiter, vice-president; Bessie Ross, secretary; Margaret Porter, treasurer, Roy Merdian and Aubrey Porter, directors. Club reporter Joy Little says 17 of the members are studying and practicing jewelry making under direction of Mrs. Lloyd Roberson, Seattle.

San Jose Lapidary society had its first birthday in January. Russell Grube, president, in his end of the year message, reported that the new society which had started with 20 members, ended its first year with 63 members, 41 of them active.

Rockhounds have noted the following letter in Look magazine, January 8, which is an appeal for gemstones common to the Mojave and other desert areas, to be sent to Alphonse Michand, Presque Isle, Maine: "I am a veteran, and, according to my doctor, I won't be much good to anyone for a number of years. My hobby is collecting colorful rock specimens, but due to my present physical and financial condition I am unable to get any. Do you suppose any of your readers would send me rocks? It would make me feel a hundred years younger and a million times richer. I would like examples of malachite, quartz, jasper, onyx, jadeite and agate."

George H. Needham, micro-chemist and president of Northern California mineral society, San Francisco, spoke at January meeting of Monterey Bay mineral society, Salinas. His subject was micro-mounts, their preparation and display. He supplemented his talk with colored slides of minerals and crystals. Everyone had an opportunity to view micro-mounts through low powered microscopes.

Leslie Roberts, Umpqua mineral club, Roseburg, Oregon, has had to inaugurate three more classes in rock cutting and polishing to meet popular demand. Each of the five classes meets twice a month.

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THAT IS DIFFERENT

JET BLACK TOURMALINE. Harder and more enduring than other black stones. Takes a brilliant polish. For faceting, black backgrounds and any use where a black stone is needed. Large crystal sections, \$5.00 per lb.

THULITE WITH ANDRADITE. Compact material showing outlines of large brown andradite garnet crystals in pink thulite. Makes interesting geometrical designs which is unusual in gem material. Especially suitable for larger pieces. 4 lbs. for \$5.00.

LAZULITE. Beautiful deep blue masses in white to buff quartzite. Larger pieces only remaining in stock. Approximately 4 lbs. for \$5.00.

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A professional finish to your work, faster.

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OPALS, small Australian fire opals. Priced according to size and quality—
8 for \$1.00, 4 for \$1.00, 2 for \$1.00
75c to \$2.00

We will send you a 5 carat selection of these opals for \$5.00.

AMETHYST, large cabochons, each stone 50 carats or over. Cut from South American checked material. Only \$2.00 each.

CEYLON MOONSTONES, 1 to 5 carats, \$1.00 per carat.

AMETHYST, large (12x8 Mm) step cut, light purple, \$4.00.

TIGER EYE, grey or red ovals, 12x5 Mm, 75c

No orders less than \$3.00 please. Calif. residents please add 2 1/2 % sales tax.

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New material and top grade from Arizona. This material comes in nodules that are very thick so slices are all that is available.

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Cutters wanting a fine material should try some. Prices—12 square inches of re-sawed slabs, no waste, \$2.50 postpaid.

Special selected slices \$1.00 to \$20.00. Money back if not satisfactory.

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With a diamond drill. Guaranteed to drill agate, ruby and sapphire. Will drill any gem under 10 hard. Drill beads, hearts and pendants. Mount ornaments on stones.

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Postpaid — Prompt Delivery

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Herbert Monlux, member of Los Angeles lapidary society, spoke on shaping, cutting and polishing of cabochons at the January meeting of San Fernando valley mineral and gem society. He exhibited many cabochons from his prize winning collection.

Erma Clark, member, spoke on iris agate at the January meeting of Orange Belt mineralogical society. She displayed a beautiful collection of iris agates and donated three specimens as attendance prizes. Plans were made for a January 20 field trip out Barstow way.

J. C. Heaslet of Fresno was scheduled to discuss faceting at January 3 meeting of Sequoia mineral society. The group plans a banquet and mineral display February 8 in Selma Baptist church.

January Pseudomorph, official publication of Kern county mineral society, Bakersfield, California, has a column on mercury which is found in Kings, Lake, Napa, Orange, San Benito, San Francisco, Santa Clara, Sonora and Trinity counties, California. Future market for the metal is uncertain, but improved methods of mining and extraction, together with increasing field of usefulness tend to make the mercury minerals more important even than heretofore.

Ralph Merrill, chemist with West End chemical company, talked on minerals of Searles lake at January 14 meeting of Mineralogical Society of Southern California held in Pasadena public library. His discussion gave members further information about Searles lake district which they visited on October field trip. Projected trip is to Mesa Grande, San Diego county. Member Vance reported a recent visit to the district. Display for the evening consisted of material from Searles lake and from Mesa Grande.

State Mineral Society of Texas has elected the following officers for 1946: Floyd V. Studer, president; L. H. Bridwell, vice-president; Mrs. Edith Owens, 380 S. 6th street, Honey Grove, Texas, secretary-treasurer.

January bulletin of State Mineral Society of Texas carries an article stating that government geologists are preparing to probe the waters of Crater Lake, Oregon, with a sound detector more sensitive than a seismograph to try to determine if the volcano is about to erupt. Unexplained wisps of steam or smoke have been observed over the lake. Geologists will have to travel through eight feet or more of snow at this season. A tractor has been ordered sent to the lake. Wires will be strung from the lake to Crater Lake lodge where recording equipment will be set up.

A group of 32 persons representing the USO of El Centro, California, made a field trip, Sunday, January 7, to the vicinity of the fossil oyster beds south of Dixieland, California, in Imperial Valley. The main object of the trip, to find the great fossil oysters, was hindered by bad roads. Rains and erosion had rendered the regular roads impassable. The soldiers, sailors and friends found only a few of the oysters, but brought back much of the fine petrified wood, jasper, fossil scallops, etc., of the district.

Old Baldy lapidary society, Glendora, California, and vicinity, reports a new geode find at Coon Hollow, in the Chuckawallas. Some specimens are crystal filled, with a colorful rim, but most of them are too sugary to make good cutting material.

Dr. Howard Coombs of the geology department University of Washington talked at Gem collectors club, Seattle, January 15 on the effect of glacial periods on geological and topographical characteristics of the Puget Sound territory.

Mineralogical Society of Southern Nevada celebrated the passing of 1945 December 30 and the return from service of Paul Merser, club's first secretary-treasurer, by a trip to Arizona where they uncovered a bed of fine agate. On New Years day 15 members returned to the field and climaxed a busy field day with turkey dinner.

William Sanborne of Pasadena gave a resume of his experiences as field geology leader for a group of boys at summer camp in the La Plata mountains, southwest Colorado, for members of Pomona valley mineral club at their January meeting. He displayed rare and unusual fluorite and calcite crystals. Wilson Thompson gave an informative talk on benitoite.

First 25 minerals of the Dana system comprised February display by Mr. Oke and Mr. Eales for Pacific mineral society, Los Angeles.

"MARVIN"—creator of distinctive hand-crafted jewelry—native gems in sterling silver—made to order—wholesale—retail—also rare Colorado minerals.

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1 Beautiful Specimen Peacock Copper\$1.00
1 Beautiful Specimen Lead and Silver..... 1.00
1 Beautiful Specimen Native Copper 1.00
1 Beautiful Specimen Serpentine 1.00

ALL 4 FOR \$3.50

Write for price list on other mineral specimens, etc.

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How to pan gold. Combine your rock hobby with prospecting. "Gold In Placer" a new book, 160 pages of instructions for the beginner prospector. The book and three large blueprints on small concentrators you can build \$3.00. Sent C.O.D. if requested. Free literature. Old Prospector, Box 21597, Dutch Flat, California.

Navajo Indian Silversmith

I now have expert Navajo silversmiths making jewelry to order. Rings, bracelets, pendants, brooches, earrings, etc. Have your cabochons mounted in pure silver mountings. Prices on request.

We carry a large stock of Indian jewelry, and cut and carry in stock turquoise and petrified wood cabochons. Wholesale, retail.

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GALLUP, NEW MEXICO

(Home of the Navajo)

ART PUFFER, Owner

O. L. Polly talked on the atom bomb at January 9 meeting of Long Beach mineralogical society. Milo Potter had a display of polished material and Fritz W. Schmidt a collection of fossils at the meeting. Long Beach group with 103 paid up members defrays running expenses of the club by a grab bag. A box of cabochons donated by members is kept on hand so that a gem may be presented each speaker who gives his time to entertain or instruct the group.

The marble industry, from quarry to commercial uses, was subject of illustrated talk by Carl Douglass before East Bay mineral society February 7.

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SPECIAL THIS MONTH—A new and attractive gold-tan to white and black Palm Root. Slices \$1.50 to \$4.50 at 15c per sq. in. A new find—limited amount. Will take high polish. Money back guarantee. Correspondence invited.

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SPECIAL OFFER, Preform Cabochon Assortment—2 Utah Variscite, 2 Birdseye Obsidian, 2 Agatized Wood, red, yellow or other bright colors, 2 Agate, 2 Jasper and 2 Petrified Bone.

ASSORTMENT ONLY \$5.00
Hurry while they last.

WORTHEN'S—Fremont, Utah

MINIATURE SETS, Ass't'd per doz. \$6.00
50 RING STONES, including genuine and synthetic \$7.50
SYNTHETIC RUBIES or GENUINE GARNETS, 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

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Sterling Silver Mountings

We can now mount your Cabochon Stones in Beautiful Sterling Silver Hand Made Mountings Specially Designed for your stones.

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Ladies' or Men's Rings \$ 6.50
Brooches with safety locks 7.50
Bracelets (one stone) 12.00
Bracelets with rings to match. 16.00
Earrings 8.00

These prices plus Federal excise tax

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LONG BEACH 2, CALIFORNIA

Cogitations . . .

Of a Rockhound

By LOUISE EATON

"Yu might as well buy a ticket to Alaska—Yu'll freez"—sez the unrockhoun when he hears uv a winter rock trip. But rockhouns don't pay mutch attention to weather—good 'r bad. They just figgers that even if it is cold 'n drizzly at home maybe it won't be where th' rox is. They pulls on extry pants, hunts up woolen caps an' gloves an' goes ahead on a skeduled trip. Furthermore it seldum rains on th desert and there's only cold (or hot) to combat.

Rockhouns is just about th most trustin folks what there is. If they goes visitin at uther rockhoun's houses they leaves valuable specimens 'n pocket books lying aroun when they goes off to call on sum wun elste, even when they've never seen their host before. But all rockhouns is honest and never appropriates the uther fellas rox.

No rockhoun is ever dissappointed on a field trip. He alwayz finds at least wun speciment that he holds caressingly and sez, "Weeeel, this baby'll be wurth my time n effort evun if I don't find a nuther rock." Besides that there's the joy uv pleasant companionship an' open spaces. Specially if it's an overnight field trip with a full moon.

MICHIGAN COLLECTOR SHOWS RARE SPECIMENS ON TRIP

Earl W. Martin of Ann Arbor, Michigan, is displaying on his California trip a dozen specimens of emerald green higginsite. This rare mineral (Cu Ca (OH) As O₄) differs from ordinary olivenite or peridotite, the "blugrund" of the South African diamond mines, only in the presence of a small percentage of calcium and in the much greener color. Instead of the massive occurrence common in olivenite, it comes in tiny, slender crystals, like diopase, of almost emerald green color, coated on iron-stained rocks. This mineral has been found on very rare occasions only in the Higgins mine, at Bisbee, Cochise county, Arizona.

At the January 19 meeting of Imperial valley gem and mineral society, the question again was raised about the great hardness acquired by many specimens after many hundreds of years in the desert sun. Specimens were shown which seemed to have an artificial, exterior hardness of almost nine. They can be scratched with sapphire only with difficulty. However, when they have been broken, or ground down on the carborundum wheel, they reveal in the interior, their normal hardness of seven.

Los Angeles mineralogical society planned a January 27 field trip to a barite deposit near Sea Cliff in the Palos Verdes hills. Field trip chairman Helyn Lehman urged all who planned to chip, chisel and hammer to wear glasses and gloves and to beware of overhanging rocks.

CHOICE DESERT SPECIMENS . . .

The fine specimens advertised below come from our Calcite Mines which are described in the August issue of the Mineralogist and the Desert Magazine.

CALCITE in superb crystal groups.

2x2 in.—\$2.00 to 4x5 in.—\$7.50

CLEAR CALCITE RHOMBS (Iceland Spar)—

Fluoresces a beautiful red under the Mineralight. 35c to \$1.00 according to size and quality.

SPECIAL—Optical Basal Plates from which the secret gun sights were made. Never before advertised. These fluoresce a nice red. 2x2 in.—\$1.00 to 5x7 in.—\$12.00.

ALSO—Mixed Mojave desert cutting material: Agates, Jaspers—5 pounds \$2.50.

HOLLOW GEODES—Chocolate mountains. Sparkling Quartz Xls and beautiful Calcite Xls interior. 50c to \$4.00.

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Stones of Rare Quality

Aquamarines—10x8, 12x10, 16x12 m/m and larger sizes, \$2.00 per carat, also round cuts.

Ceylon Sapphires—Blue, Golden \$2.00 per carat.

Ceylon Red Garnets—\$5.00 per dozen.

Ceylon Hessonite Garnets—\$1.00 per carat.

Brilliant Cut Sapphires—\$5.00 per carat.

Carved Sapphires and Rubies—\$3.00 per carat.

100 Carved Obsidians—\$40.00.

Ceylon Zircons—\$1.00 per carat.

Rare Chrysocolla—\$10.00 per 100 carat lot.

Moonstones—\$35.00 per 100 carat.

Rare Green Garnets—\$5.00 per carat.

Moss Agates—\$6.00 to \$12.00 per dozen.

Rare Cameos of all kinds.

Optical Prisms—1 1/4 inch, \$1.50 each.

Many Other Gems at 25c to \$5.00 each.

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6-inch	\$4.50	12-inch	\$ 8.75
8-inch	5.50	14-inch	11.00
10-inch	6.80	16-inch	13.75

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Be sure to specify size required.

VRECO GRINDING WHEELS are made expressly for gem stone grinding.

	100 Grain 6" 100 & 180	220 Grit
6 x 3/4-inch	\$ 2.10	\$ 2.25
6 x 1 -inch	2.40	2.60
8 x 1 -inch	3.60	3.90
10 x 1 -inch	5.00	5.30
10 x 1 1/2-inch	7.00	7.50
12 x 1 -inch	6.75	7.25
12 x 1 1/2-inch	9.60	10.40
12 x 2 -inch	12.30	13.30

Arbor Hole Sizes: 1/2", 5/8", 3/4", 7/8", 1"
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VRECO DRESSING BRICKS—

For removing glaze and loading from Grinding Wheels. Keep them cutting at top efficiency.

8"x2"x1" Dressing Brick\$.75

VRECO POLISHING TRIPOLI—

2 lbs.\$.85

VRECO POLISHING TIN OXIDE

The superior polishing agent for a final high polish. At pre-war prices.

Per pound\$1.25

VRECO POLISHING WHEELS—

Highest quality wheels for gem stone polishing.

6 x 1	\$ 3.75
8 x 1	6.25
8 x 1 1/2	8.50
8 x 2	11.00
10 x 1	11.00
10 x 2	16.90
12 x 2	24.40

Arbor Hole Sizes: 1/2", 5/8", 3/4", 7/8", 1"
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Vreeland Manufacturing Co.

2026 S. W. Jefferson St. Portland 1, Oregon

Alexite Engineering company, of Colorado Springs, Colorado, recently started mining a vast deposit of vermiculite near Encampment, Wyoming. The deposit is estimated to run into millions of tons. This mineral, which resembles mica, has the peculiar characteristics of exfoliating, when heated, to almost ten times its normal size, by spreading out and acquiring between the layers numerous air cells. Thus the weight drops to one tenth. It then can be used as fire proof, germ proof insulation, or, when mixed with cement, forms a wonderfully light plaster for insulating refrigeration plants or for hot pipes and furnaces.

U. S. Bureau of mines reports that electrolytically produced pure manganese, taken from very low grade manganese ores, now can be substituted for low carbon ferromanganese in the manufacture of stainless steel.

E. E. Hadley of the department of invertebrate paleontology, Los Angeles county museum, spoke on collecting fossils in Southern California at January 7 meeting of Los Angeles lapidary society. The "faceteers" held their first meeting at the home of Tom Daniel. There were 21 present. Displays arranged by members of Los Angeles lapidary society are always interesting and dazzling.

East Bay mineral society announces that any club not making a direct contribution to the devastated museums in Belgium, may forward material to East Bay Mineral Society, c/o D. E. Cameron, secretary, Auditorium Lincoln School, 11th and Jackson streets, Oakland, California, for forwarding. Searles Lake gem and mineral society recently sent fine specimen material for this purpose.

Mineralogical Society of Southern Nevada, Las Vegas, was to meet February 4 for annual election of officers. Public was invited.

TRUE OR FALSE ANSWERS

Questions are on page 32

- 1—True.
- 2—False. Snow falls on the saguaros growing on the higher levels.
- 3—False. Mesquite is one of the most popular hosts for mistletoe.
- 4—False. The Navajo hogan always faces east.
- 5—True. 6—True.
- 7—False. The Bill Williams empties into the Colorado just above Parker, Arizona.
- 8—True. 9—True.
- 10—False. Shiprock was climbed by Sierra club members from California in 1938.
- 11—False. Copper is never obtained by placer mining.
- 12—False. *Death Valley in '49* was written by William Lewis Manly.
- 13—False. California's first dates were imported from Africa.
- 14—True. 15—True.
- 16—False. The Hassayampa normally does not carry water enough to float a rowboat.
- 17—True.
- 18—True. Botanists report finding 545 species of flowering plants in Death Valley.
- 19—False. Winnemucca was a chief of the Paiutes.
- 20—True.

"Iron occurs native chiefly as meteoric iron. Iron meteorites have been found in El Dorado, Inyo, Kern, San Bernardino and Trinity counties of California. Although iron, in the form of various chemical compounds, is of great abundance among the materials of the earth's crust, native iron is of the greatest rarity. This is readily explained by the fact that metallic iron is quickly altered by oxidation when exposed to the weather. Small grains of metallic iron have been observed imbedded in basaltic rock at a few places, and in Greenland large masses have been found in basalt." (Quoted from "The Pseudomorph," official publication of the Kern county mineral society, inc.)

A cheap, fire resistant material for insulation now can be made from perlite, a very common form of glassy obsidian found in any volcanic region. Perlite, like vermiculite, expands up to ten times its normal size when properly heated. It is a relative of common pumice as well.

Southwest Mineralogists have set March 30 and 31 as dates for their ninth annual gem and mineral show, to be held in the auditorium, Harvard playground, 6120 Denker avenue, Los Angeles, California.

An electromagnetic cane which facilitates discovery of meteorites near surface of ground, causing small fragments to "jump" an inch or more to the collecting tip has been reported by Dr. Lincoln La Paz, director University of New Mexico institute of meteorites, to the Society for Research on Meteorites, of which he is president.

Parable . . .

Of A Rockhound

By WILLARD ELTER

The way of a rockhound is full of madness and past finding out. He carrieth a hatchet in his hand and smiteth the rocks therewith. He findeth round pebbles and dealeth them mighty blows, perchance destroying precious jewels. He luggeth home huge boulders and worketh them over with much patience and seeth his labor is vain.

He waltheth the sands of Death Valley and feareth no evil. He kicketh the rattlesnake from his path nor stayeth he for the gila monster if peradventure it basketh near an ancient bottle made amethyst by the noonday sun. He sitteth down on a cactus nor feeleth its sting as he gloateth over his good treasure.

He wasteth not his substance in riotous living, but sendeth messages to distant lands and in due season he receiveth divers fragments with high sounding symbols. These trophies he layeth down on the parlor table, wherefore, as be-falleth mankind, he findeth himself in the house of the canine.

He gathereth minerals from the length and breadth of the land and transmiteth them for identification and after days of weary waiting he learneth they are neither gold nor silver nor yet scheelite, but compounds of silica of no value.

Then girdeth he up his loins and fareth forth to new pastures and behold! he uncovereth agate and jasper and onyx. Straightway he goeth down to the land of the gem cutters and entereth the realm of grinding and polishing where he becometh a rock hound forever.

AMATEUR GEM CUTTER

This page of Desert Magazine is for those who have, or aspire to have, their own gem cutting and polishing equipment. Lelande Quick, who conducts this department, is former president of Los Angeles Lapidary society. He will be glad to answer questions in connection with your lapidary work. Queries should be addressed to Desert Magazine, El Centro, Calif.

By LELANDE QUICK

Julia Underhill of San Luis Obispo, California, has inquired about equipment for grinding big rocks and the mud saw is the answer—plus a large lap wheel. Five years ago when diamond saws were still new one could scare up a lively argument in any group of gem cutters regarding the merits of the mud saw versus the diamond saw. As a rule the proponents of the mud saw usually won the discussion because they so far outnumbered the diamond saw users. But now the situation is reversed and the man who argues that the mud saw is better belongs to the battleship rather than the atomic age. At that time diamond saws were very expensive and the upkeep terrific but now blades last so long and they are so efficient that I see no good reason but one for having a mud saw around the premises. If one is interested in massive gem cutting and makes large novelties such as bowls, ash trays, pen stands, bookends, etc., I believe the mud saw is a practical piece of equipment because of its economy and the gangue principle of cutting several slabs of material for selection at once from large pieces of rock. Otherwise there is no good excuse for having the messiest piece of equipment ever devised for an art or a hobby. I notice no advertisements have appeared for some time for mud saws and I doubt if an advertiser could do enough business to pay for an ad if he offered them for sale. They are still the practical solution if you get a lot of fun from just sawing a lot of big rocks.

I hope that in the next five years as much progress is made with faceting equipment for the amateur as has been made with cabochon grinding equipment. The commercial equipment now offered is too much like doll house furniture. It is too small and not adaptable enough. I have examined several faceting heads but I have yet to find one that I yearn to possess. However they get better and I hope a good head is available soon for I itch to facet. At present a good commercial faceting head is the greatest need of the amateur gem cutter. After that is in production maybe someone could devise an x-ray arrangement for examining geodes before cutting them.

Joe Green of Hereford, Texas, writes: "When I was a kid lots of people wore rings, pens, watch charms and hearts made of a stone they called goldstone. I have some of it in old rings and cuff links and have been trying ever since I began grinding to get some of this stone in the rough. It is beautiful and takes a fine polish and I think it is a sandstone of some kind." Well, you're partly right, Mr. Green. It is a sandstone of some kind in that it is glass and glass is made of sand. I remember the material well for the first pair of cuff links I ever had were made of "goldstone." This stone, sometimes referred to as "aventurine glass," was a semi-transparent glass, usually brown, in which copper filings were included. I haven't seen a piece of it for a generation and I wish I had a specimen for my collection.

Using the word aventurine reminds me that I pulled a boner last month when I said that a peridot was green quartz. Aventurine is green quartz while a peridot is chrysolite or olivine. No one wrote to me about this error, which puzzles me, although it was called to my attention by a friend when I made the same error in a gem quiz written by another. He corrected me by making the common error himself of calling the right mineral "aventurine" instead of aven-

turine. This is one of the most mispronounced words in gemology.

Arrangements have not been completed but the Fifth Exhibition of Gems by the Los Angeles Lapidary society is tentatively scheduled to open on Saturday, May 4 in the main art gallery of the Los Angeles County Museum of History, Science and Arts, Exposition Park, Los Angeles. It is planned to have the gems remain on exhibit until the end of June. I will have more information to offer later although I will risk offending a middlewest correspondent who wrote me last year that he didn't want to read any more about the Los Angeles Lapidary society and their exhibitions. He was interested in gems he said but not in the exhibitions. Baseball fans are usually wound up over the World's Series and football addicts over the Rose Bowl game so that I can't imagine anyone interested in gem cutting not being avidly curious about the biggest event for them. To witness these exhibitions is the greatest revelation and inspiration any gem cutter ever had. I never see one myself but what I want to immediately leave and go home to the shop and get the machinery going.

Of the many books in my gem library the one I have found most useful is *Practical Gemology*, by Robert Webster, with the English spelling because it is an English book. This book has been unprocurable for some time but it has now been issued in an American edition by the Gemological Institute of America at Los Angeles (\$2.75) under the new title *Introductory Gemology*. Virginia V. Hinton of the Institute is co-author of the revised edition although little has been added except many interesting micro-photographs of mineral inclusion in gems and some additional pages on diamonds on which Hinton is an authority. The important fact is that the book is again available.

This is not a book that will tell an amateur gem cutter what equipment to get and how to cut but it is the very book that any gem cutter with a curiosity about gems should have and study. I use the word study for it is a textbook of which each chapter is a complete lesson in gemology with questions and answers at the end of each chapter. There are chapters on crystallography, physical properties, light, specific gravity, etc., but the most interesting chapters are the ones dealing with artificially induced color, styles of cutting and the descriptions of gems themselves. The book is a liberal education in the science of gem materials and is particularly designed for the student unacquainted with mineralogy. It is to be regretted that Mrs. Hinton did not grasp the fine opportunity of including a chapter on new American materials and several chapters on cutting and polishing. However, the book was intended for people who sell gems and not for people who cut them. The book can be regarded as the Hoyle of gemology. It will settle with authority almost any argument you will ever have about gems and I wouldn't be without it. However, if you possess the English edition there is little point in buying the new American edition.

DID YOU KNOW THAT . . .

- Pink quartz (rose quartz) is rarely found without being badly fractured. It is massive and not in formed crystals as with other colors.
- A geode is a hollow nodule.

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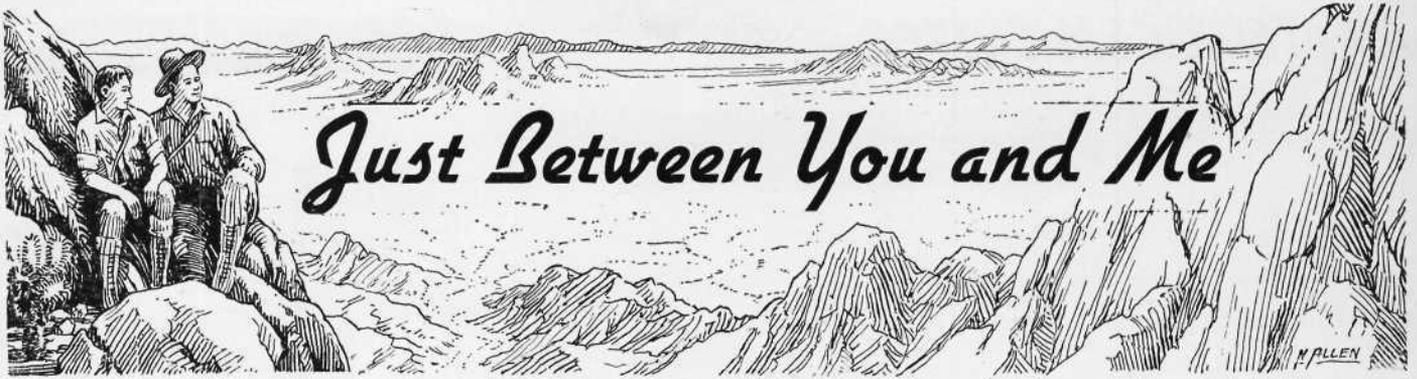
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By RANDALL HENDERSON

A NEWSPAPER clipping reports that the University of California's experiment station at Riverside is trying to develop species of bugs and moths which will wage war on prickly pear cactus where it threatens to crowd the cattle off the range in some parts of California as it has done in Texas.

The bugs puncture the pads, suck out the juice, and appear to inoculate the plant with a fatal disease. The moths lay eggs in the long spines of the cactus. When these hatch, the larvae burrow into the pads and chew on them until they become withered shells.

I am well aware of the pestiferous manner in which prickly pear spreads over the countryside. It needs curbing. But on behalf of the growing tribe of humans who have a great fondness for the desert country, I want to petition the professors to train their bugs well—so they'll know the difference between prickly pear and a bisnaga or saguaro or beavertail. We don't want those cactus-chewing insects invading the great natural gardens of cacti on the desert side of the mountains. No one would ever want to destroy a beavertail after seeing the beauty of its blossom.

* * *

Extending along the Arizona shore of the Colorado river for a distance of 50 miles south of Parker, Arizona, is 85,000 acres of the most fertile land in America. For the most part it is bottom land covered with a heavy growth of mesquite. It belongs to the Indians—the Mojaves, Chemehuevis and a few Yumas—the tribesmen of the Colorado River Indian reservation. With two or three exceptions these Indians are not good farmers. They have never cultivated more than 5000 acres of their rich valley.

During the war 17,000 Japanese evacuees were moved into the mesquite jungle and quartered in jerry-built barracks. They did fairly well, clearing over 3000 acres and putting 2500 acres in a good state of cultivation.

During the past 50 years various groups of land-seeking white men have looked longingly at that fertile valley of the Colorado, and have made numerous efforts to wrangle its unoccupied acres from the Indian owners. But the Indian service had a far-sighted plan for the utilization of those vacant lands, and opposed every effort to grab them. Within recent months the plan has begun to take form.

Last September 16 families of Hopi Indians from the barren mesas of northern Arizona moved down into Parker valley—with the consent of the Mojave owners—and are undertaking an ambitious farming program. These families are the forerunners of what the Indian service hopes will be a general migration of Hopis and perhaps Navajo to this valley.

Recently I visited the Hopi colony. What I saw there recalled the days when American settlers were reclaiming the lands in Imperial and Yuma and Palo Verde valleys. The Hopis are doing a pioneering job—camping in barracks that keep out neither the cold in winter nor the heat in summer. There are problems of water supply and sewerage, and of insects and the depredations of range stock. They are establishing new homes in a desert wilderness.

It is a critical test for these tribesmen, and the tragedy of it is they have not the incentive which inspired homesteaders in other valleys of the Colorado to endure all manner of hardship.

When an American citizen moved to his homestead in Imperial valley he had a pledge from Uncle Sam that if he fulfilled certain requirements as to residence and cultivation, the land would be his—and no one could take it away from him. His reward was to be ownership and independence, and for that goal he and his family were willing to work long hours and endure many privations.

The Hopi has no such assurance. He doesn't have full citizenship rights, and there is no guarantee that he will ever acquire fee simple title to his 40-acre farm. And therein lies the weakness of a colonization program which otherwise holds tremendous possibilities not only for the Hopis but for all Indian wards of Uncle Sam.

Congress can correct this situation, and in justice to the Indian it should be corrected. Any foreigner of good character can come to the United States and by complying with certain well understood requirements, acquire citizenship and property. Why should not that same opportunity be extended to the original American occupants of the land we call free America?

* * *

In the mail this week was a letter from a man who lives in a cabin in a quiet corner of the desert—a place he built where he and his wife could spend the late years of their lives away from the hurly-burly of the city. He wrote:

"Civilization is moving in too fast. Power lines and canals and fences and roadside drink stands are cluttering up the landscape in all directions. I wish we could keep these invaders out. They are taking the romance out of our desert country."

In my answer to him I said: "... I am one of many who share the wish that we could keep the desert remote from the pressures of commerce. And yet isn't that a rather selfish wish? The desert has no meaning insofar as the race of men is concerned unless they partake of it. It is only to the extent that humans come here and find renewed faith and courage amid these pastel hills and rock-rimmed canyons that the desert becomes an asset to mankind. Paved roads and landing fields and power lines and roadside accommodations make it possible for increasing numbers of people to have access to the peace and beauty of the desert country.

"After all, none knows better than you and I the immensity of this great arid region of the Southwest with yet millions of acres where there are no fences and paved roads, and with a hundred thousand canyons that few mortals have ever seen. Perhaps the invaders will force those of us who prefer a generous portion of solitude in our daily ration of living to retreat a little deeper into the desert wilderness that lies beyond the hot-dog stands and the real estate salesmen. But I am sure there will be such places for many generations yet to come.

"And in the meantime the desert will do something for those who partake of its sun and sand and solitude. And if you are not sure of that, let me remind you that the most inspiring religious philosophy on this earth came from the desert. Jesus Christ was a Desert Man."



UTAH SKETCHED IN BOLD COLORS AND LUSTY WORDS

"When you are a tourist, if you are any good at all, you stop to question every Tom, Dick, and Harry. That's just what I am letting you do in this book—ask questions and get them answered."

But Maurine Whipple, in **THIS IS THE PLACE: UTAH**, does not answer them in a didactic form. The book is neither a cataloging of geological wonders, a chronological history of the people, nor a mile-by-mile travel guide. Her chapters are more like the sudden shiftings of a kaleidoscope—the same abrupt and surprising change in pattern and color. And it's more the warm human reaction to these people of Deseret and to their land of unrealities than a mere telling about them.

It's the story of Father Escalante in 1776 trying to make his way through this wilderness from Santa Fe to Monterey; of the Mormons who dug sego roots and thistles and boiled up buffalo-hide bedquilts that first winter in 1847. It's the story of Uncle Zeke Johnson and his wondrous Natural Bridges, of Norm Nevills, boatman-explorer, and the wild river he conquered, of Harry Goulding in his car with the "big air wheels" that'll take you over any sand dune in Monument Valley; it's the story of the Wild Bunch and of the dinosaur graveyard. And it's the story of Mormon villages, neat and orderly—no false fronts, no ugliness—in a region so disordered and vertical that the surveyors measure the land in *cubic* inches. Well, you gather that Utah is a land of split personality, as one of Maurine's friends declared.

It's also the Land of Miracles. Maurine tells about them—testimony of those who have seen visions, those who've been brought back from the dead. And it's the land most folks associate with polygamy, although she says it "has become almost legendary; to the generation coming of age it survives chiefly in a consciousness of innumerable relatives." And she tells much more about these "peculiar people," their habits and taboos, their cookery, their folk expressions and their swearing—and their prayers.

In this latest book Miss Whipple has discarded none of the lusty, vigorous flavor that characterized her prize-winning novel of 1941, *The Giant Joshua*.

Published in 1945 by Alfred A. Knopf. Size 7x9¾, 222 pages, 102 beautiful photos, four of which are in full color, 2 double-page maps. \$5.00.

BOOK BRIEFS . . .

You don't have to be a railroad enthusiast to enjoy James Marshall's *Santa Fe: The Railroad that Built an Empire*, published in December by Random House. Marshall, Pacific Coast correspondent for *Colliers*, has used to full advantage all the drama involved in the major achievement of building a railroad through mountains, deserts and seemingly impassable canyons, with the attendant dangers of Indians, wild animals and playful cowboys who shot out headlights of locomotives. He also has written of men whose names are intimately linked with the Southwest: Cyrus K. Holliday, father of the Santa Fe; Fred Harvey, Bat Masterson, Kit Carson, Jesse James, of the railroad giants and their titanic battles.

The Hopi Way, a study of this conservative tribe of Arizona by an anthropologist and a psychiatrist, was published by University of Chicago Press in 1945. Written by Laura Thompson and Alice Joseph, it was sponsored by University of Chicago and Office of Indian Affairs, and planned as first in series dealing with several Indian tribes. A detailed and sympathetic account of the Hopi nature-world, their intricate philosophy and successful struggle for survival as a "Peaceful People." Stresses importance of conserving much that is fundamental in the native culture.

. . .

Autumn, 1945, edition of *Arizona Quarterly* contains historical character sketch by Mary Roberts Coolidge, noted Southwestern author, manuscript of which was sent to Mary Kidder Rak for editing shortly before Mrs. Coolidge's death in 1945. Mrs. Coolidge, who had taught at Stanford and Mills College, California, was especially well known for her book *The Rainmakers*, about Indians of Arizona and New Mexico, and for her collaboration with Dane Coolidge on *The Navajo Indians*.

March Photo Contest Announcement

"Camping on the Desert" is to be the subject for Desert's monthly photograph contest in March—the deadline is March 20. Any phase of camp life on the desert may be pictured—building the fire, frying the flapjacks, making up the bedroll, constructing the fireplace, etc.—we want some people in these pictures.

For the winning picture \$10 will be paid, second place \$5, and \$2.00 for each non-prize winning picture purchased for future use in Desert Magazine.

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.

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(Photograph Below)

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